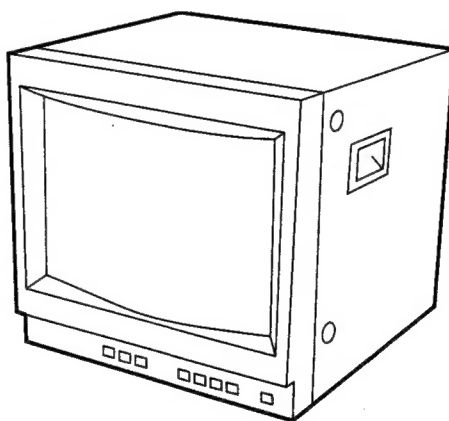


SERVICE MANUAL

SIIA CHASSIS

| <i>MODEL</i> | <i>DEST.</i> | <i>CHASSIS NO.</i> | <i>MODEL</i> | <i>DEST.</i> | <i>CHASSIS NO.</i> |
|-----------------------|-----------------------|-----------------------------|-----------------------|-----------------------|-----------------------------|
| <i>PVM-14N5A</i> | <i>AUS</i> | <i>SCC-N87D-A</i> | <i>PVM-20N5A</i> | <i>AUS</i> | <i>SCC-N87F-A</i> |
| <i>PVM-14N5E</i> | <i>AEP</i> | <i>SCC-N86C-A</i> | <i>PVM-20N5E</i> | <i>AEP</i> | <i>SCC-N86E-A</i> |
| <i>PVM-14N5MDE</i> | <i>AEP</i> | <i>SCC-N86F-A</i> | <i>PVM-20N5U</i> | <i>US/CND</i> | <i>SCC-N84D-A</i> |
| <i>PVM-14N5U</i> | <i>US/CND</i> | <i>SCC-N84B-A</i> | <i>PVM-20N6A</i> | <i>AUS</i> | <i>SCC-N87E-A</i> |
| <i>PVM-14N6A</i> | <i>AUS</i> | <i>SCC-N87C-A</i> | <i>PVM-20N6E</i> | <i>AEP</i> | <i>SCC-N86D-A</i> |
| <i>PVM-14N6E</i> | <i>AEP</i> | <i>SCC-N86B-A</i> | <i>PVM-20N6U</i> | <i>US/CND</i> | <i>SCC-N84C-A</i> |
| <i>PVM-14N6U</i> | <i>US/CND</i> | <i>SCC-N84A-A</i> | <i>SSM-20N5A</i> | <i>AUS</i> | <i>SCC-N87B-A</i> |
| <i>SSM-14N5A</i> | <i>AUS</i> | <i>SCC-N87A-A</i> | <i>SSM-20N5E</i> | <i>AEP</i> | <i>SCC-N86G-A</i> |
| <i>SSM-14N5E</i> | <i>AEP</i> | <i>SCC-N86A-A</i> | <i>SSM-20N5U</i> | <i>US/CND</i> | <i>SCC-N84F-A</i> |
| <i>SSM-14N5U</i> | <i>US/CND</i> | <i>SCC-N84E-A</i> | | | |



TRINITRON® COLOR VIDEO MONITOR


SONY

⚠ WARNING

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

(PVM-14N5MDE only)

| | |
|----------------------------------|--|
| Electromagnetic Compatibility |  This device complies with the requirements of Directive 89/336/EEC concerning electromagnetic compatibility. This device meets EN50081-1/92 and EN50082-1/92. |
|----------------------------------|--|

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK **Δ** ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE **Δ** SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES CONT D'UNE IMPORTANCE CRITIQUE PUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDiqué DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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Trinitron®
Color Video Monitor

SECTION 1
OPERATING INSTRUCTIONS

This section is extracted
from operating instructions

1-1. PVM-14N5/14N6 (A/E/U), PVM-20N5/20N6 (A/E/U)

| | | |
|-------------------------|-----------|----|
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| Mode d'emploi | Page 16 | F |
| Bedienungsanleitung | Seite 30 | D |
| Manual de instrucciones | Página 44 | E |
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Trinitron

PVM-14N5A/14N5E/14N5U
PVM-14N6A/14N6E/14N6U
PVM-20N5A/20N5E/20N5U
PVM-20N6A/20N6E/20N6U

© 1998 by Sony Corporation

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____
Serial No. _____

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

Dangerously high voltage are present inside the unit.

Do not open the cabinet. Refer servicing to qualified personnel only.

In the event of a malfunction or when maintenance is necessary, consult an authorized Sony dealer.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in the United Kingdom

WARNING

THIS APPARATUS MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

- Green-and-yellow: Earth
- Blue: Neutral
- Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \perp or coloured green or green-and-yellow.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Ensure that your equipment is connected correctly - If you are in any doubt consult a qualified electrician.

ATTENTION:

Picture distortion may occur if this monitor is positioned in close proximity to any equipment emitting electromagnetic radiation.

Precaution

On safety

- Operate the unit only with a power source as specified in "Specifications" section.
- The nameplate indicating operating voltage, power consumption, etc., is located at the rear.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged power cord.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

To keep the unit looking brand-new, periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since they will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

On repacking

Do not throw away the carton and packing materials. They make an ideal container which to transport the unit.

If you have any questions about this unit, contact your authorized Sony dealer.

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About this manual

Before operating the unit, please read this manual thoroughly and retain it for future reference.

The explanation given in this manual can be applied to the following models unless noted otherwise. When explanation differs among models, this is clearly indicated in this manual.

- PVM-14N5A/14N5E/14N5U (14-inch monitor)
 - PVM-14N6A/14N6E/14N6U (14-inch monitor)
 - PVM-20N5A/20N5E/20N5U (20-inch monitor)
 - PVM-20N6A/20N6E/20N6U (20-inch monitor)
- Illustrations of the video monitor are for the PVM-20N6A/20N6E/20N6U.

Features

Picture

Fine pitch Trinitron[®] picture tube

The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.

Comb filter

When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Four color system available

The monitor can display NTSC, PAL, SECAM and NTSC-M signals. The appropriate color system is selected automatically.

Input

Analog RGB input connectors (for PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only)

Analog RGB signals from video equipment can be input through these connectors.

Y/C input connectors

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, ensuring video quality.

Automatic termination (connector with Δ mark only)

The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connector. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

1) Trinitron

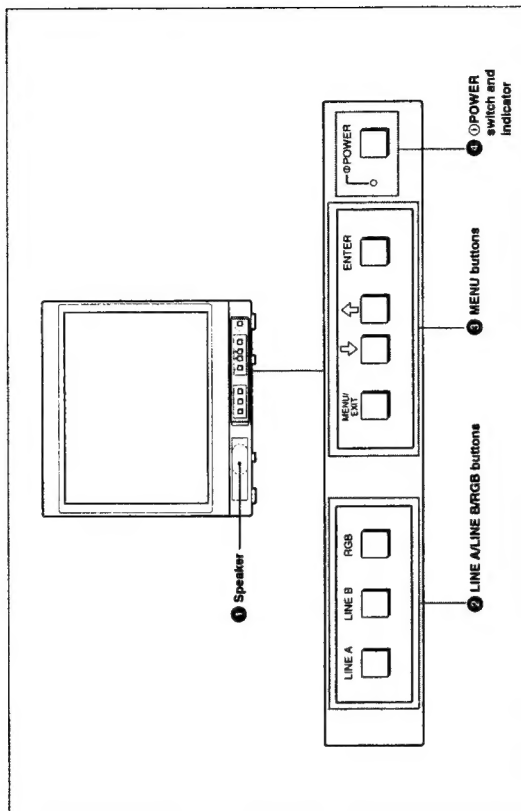
"Trinitron" is a registered trademark of Sony Corporation.

2) NTSC-M

The NTSC-M system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43MHz. When an NTSC recorded video program is played back with a Tridient (PAL/SECAM/NTSC-M) VTR, the NTSC-M signal is output.

Location and Function of Parts and Controls

Front



1 Speaker

2 LINE A/LINE B/RGB (input select) buttons

Press to select the program to be monitored.

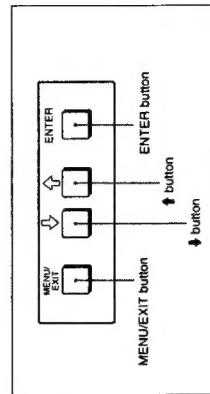
| Input signal | Press |
|---|-------------------|
| Signal fed through the LINE A connector | LINE A |
| Signal fed through the LINE B connector | LINE B |
| Signal fed through the RGB connectors ^{a)} | RGB ^{a)} |

^{a)} Provided with the PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only.

3 MENU buttons

Press to make the menu appear.

For detailed information on MENU buttons, see "Operation through On-Screen Menus" on page 9.



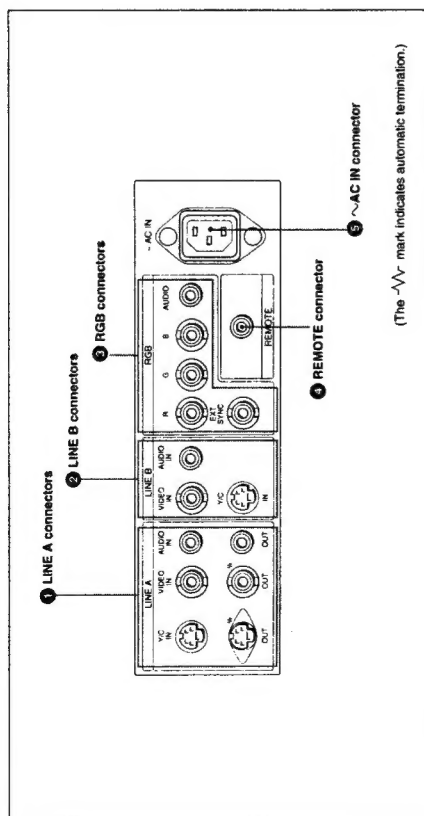
4 POWER switch and indicator

Press to turn the monitor on. The indicator lights in green.

To turn the power off, press this again.

Location and Function of Parts and Controls

Rear Panel



① LINE A connectors

Input connectors for the composite video, Y/C separate video and audio signals and their loop-through output connectors.

To monitor the input signal fed through these connectors, press the LINE A button on the front panel.

Note

The Y/C IN connector has priority over the VIDEO IN connector. When connecting the cable to the Y/C IN connector, the Y/C IN connector is automatically selected and the VIDEO IN connector is disconnected even if the cable is connected.

Y/C IN connector (4-pin mini-DIN)

Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

Y/C OUT connector (4-pin mini-DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VCR or another monitor.

When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

VIDEO IN connector (BNC-type)

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

VIDEO OUT connector (BNC-type)

Loop-through output connector of the VIDEO IN connector. Connect to the video input connector for a VCR or another monitor.

When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN connector (phono jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

AUDIO OUT connector (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VCR or another monitor.

② LINE B connectors

Input connectors for the composite video, Y/C separate video and audio signals.

To monitor the input signal fed through these connectors, press the LINE B button on the front panel.

Y/C IN connector (4-pin mini-DIN)

Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

VIDEO IN connector (BNC-type)

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

AUDIO IN connector (phono jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

③ RGB connectors

(provided with the PVM-14N6A/14N6E/14N6U / 20N6A/20N6E/20N6U only)

Analog RGB input connectors for the R/G/B signals, external sync signals and audio signals.

To monitor the input signal fed through these connectors, press the RGB button on the front panel.

R/G/B (input) connectors (BNC-type)

Connect to the analog RGB outputs connectors of a video camera, VCR or other video equipment. The monitor operates on the external sync signal.

The monitor also can operate on the sync signal from the G channel by setting RGB SYNC to SYNC ON GREEN in the menu.

For detailed information on sync signal setting, see "3d RGB SYNC menu" on page 12 of "Functions of On-Screen Menus".

AUDIO IN connector (phono jack)

Connect to the audio output connectors of video equipment when the analog RGB signal is input.

EXT SYNC (external sync input) connector (BNC-type)

Connect to the sync signal output of a video camera, VCR or other video equipment.

When you set RGB SYNC to SYNC ON GREEN in the menu, the monitor operates on the sync signal from the G channel so that it is not necessary to use this connector.

For detailed information on sync signal setting, see "3d RGB SYNC menu" on page 12 of "Functions of On-Screen Menus".

④ REMOTE connector (phono jack)

(provided with the PVM-14N6A/14N6E/14N6U / 20N6A/20N6E/20N6U only)

This connector functions as follows.

Open: When this connector is open, the current input signal is selected.

Ground: By grounding this connector, the input signal selected before the current signal is selected.

⑤ ~AC IN (inlet) connector

Connect the supplied AC power cord to this connector and to a wall outlet.

Using On-Screen Menus

You can make various settings and adjustments of the monitor using the on-screen menus.

On-Screen Menu Configuration

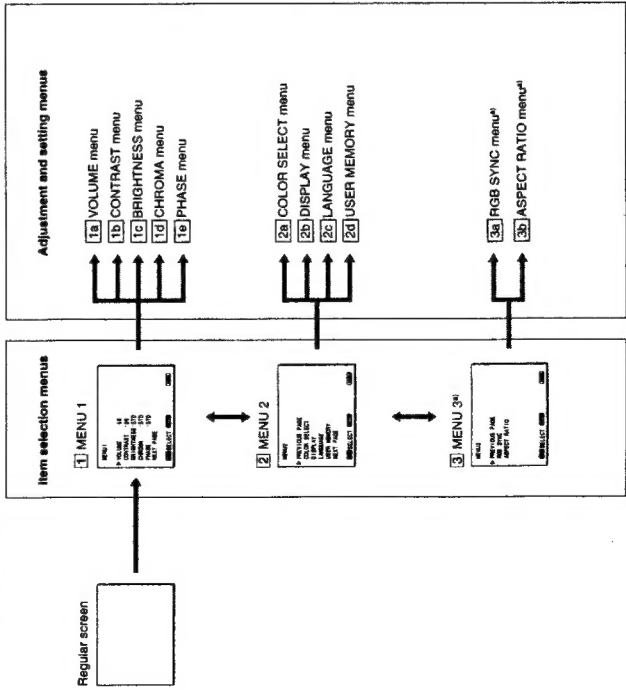
The on-screen menu is composed of the following two menu types.

Item selection menu

You can select an adjustment and setting item such as sound volume, contrast, brightness, color intensity, color system and menu language by using the **↑**, **↓** and **ENTER** buttons.

Adjustment and setting menus
You can make desired adjustment or setting on corresponding menu. The settings and adjustments remain unchanged until next adjustment even if you turn off the power.
To reset the settings and adjustments to the factory-settings, select "FACTORY PRESET" from **USER MEMORY** menu.

On-screen menu tree-chart

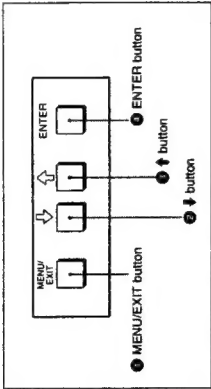


a) These menus **[3]**, **[3a]** and **[3b]** are provided with PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only.

Operation through On-Screen Menus

Menu operation buttons

There are four menu operation buttons on the front panel of the monitor.

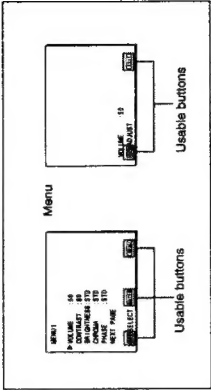


Button functions depend on the displayed menu. The following table shows the button functions on the item selection menu and adjustment and setting menus.

| Button | Function on the item selection menu | Function on the adjustment and setting menu |
|--------------------|-------------------------------------|---|
| [MENU/EXIT] | To return to the regular screen. | To return to the item selection menu. |
| [↑] | To move the cursor downward. | To decrease value/select item. |
| [↓] | To move the cursor upward. | To increase value/select item. |
| [ENTER] | To decide a selected item. | To decide a selected item ^{a)} . |

a) You can use the **ENTER** button only on the **USER MEMORY** menu of the adjustment and setting menus.

Usable buttons depend on the displayed menu. Buttons that can be used on the menu are displayed at the bottom line of the screen. You can perform menu operation using displayed buttons.



Display of the usable menu operation buttons

Operating procedures

To display the menu, follow this procedure.

- 1 Press the **MENU/EXIT** button.
MENU 1 appears.
- To select items other than ones not displayed on MENU 1
Select **[2]** MENU 2 or **[3]** MENU 3 ¹⁾.

For details of how to select, see the "To change the item selection menus" described later.

- 2 Move the cursor to the desired item by pressing the **↑** or **↓** button.
- 3 Press the **ENTER** button.
The adjustment and setting menu selected in step 2 appears.

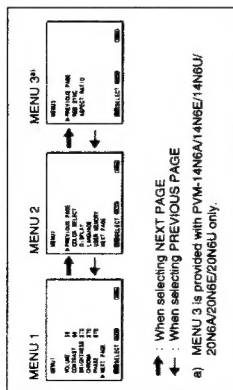
For detailed information of menus, see "Functions of On-Screen Menus" on page 10.

1) **[3]** MENU 3 is provided with PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only.

Using On-Screen Menus

To change the item selection menus

Select NEXT PAGE on the menu to display next item selection menu and PREVIOUS PAGE on the menu to display the previous item selection menu.



How to change the item selection menu

To return to the item selection menu from the adjustment and setting menus

Press the MENU/EXIT (⏻) button on the currently displayed adjustment and setting menu.

To close the menu (to return to the regular screen)

Press the MENU/EXIT (⏻) button when the item selection menu is displayed. The on-screen menu disappears and the regular screen appears.

Using the Last Control Function

If you press the ⏻ or ⏮ button when the menu is not displayed, one of the following menu items that you adjusted last time is displayed.

- VOLUME
- CONTRAST
- BRIGHTNESS
- CHROMA
- PHASE

Then you can adjust the item immediately.

Functions of On-Screen Menus

Item selection menus

1 MENU 1

MENU 1 menu has the following selection items.

| Item | Functions |
|------------|-------------------------------|
| VOLUME | To obtain the desired volume |
| CONTRAST | To adjust the contrast |
| BRIGHTNESS | To adjust the brightness |
| CHROMA | To adjust the color intensity |
| PHASE | To adjust the phase |

2 MENU 2

MENU 2 menu has the following selection items.

| Item | Function |
|--------------|---|
| COLOR SELECT | To select the color system of the input signal |
| DISPLAY | To select period of display |
| LANGUAGE | To select the menu language |
| USER MEMORY | To store and recall the values and settings adjusted by a user, and recall the factory settings |

3 MENU 3

(for PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only)

MENU 3 menu has the following selection items.

| Item | Function |
|--------------|--|
| RGB SYNC | To select the sync signal when the RGB signals are input |
| ASPECT RATIO | To select the aspect ratio |

Adjustment and setting menu

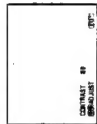
1a VOLUME menu (Factory setting: 50)



Adjust the speaker volume.

The volume increases by pressing the ⏮ button.
The volume decreases by pressing the ⏭ button.

1D CONTRAST menu (Factory setting: 80)



Adjust the contrast of the screen.

The contrast becomes higher by pressing the ⏮ button.
The contrast becomes lower by pressing the ⏭ button.

1C BRIGHTNESS menu (Factory setting: STD)



Adjust the brightness of the screen.

The screen becomes brighter by pressing the ⏮ button.
The screen becomes darker by pressing the ⏭ button.

1d CHROMA menu (Factory setting: STD)



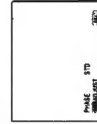
Adjust the color intensity of the video signal.

The color intensity strengthens by pressing the ⏮ button.
The color intensity weakens by pressing the ⏭ button.

Note

The color intensity of an composite video signal or a Y/C separate signal can be corrected on this menu.
That of the RGB signals cannot be corrected.

1e PHASE menu (Factory setting: STD)



Adjust the phase of the video signals.

The skin tone becomes greenish by pressing the ⏮ button.
The skin tone becomes purplish by pressing the ⏭ button.

Note

The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal and RGB signals cannot be corrected.

2a COLOR SELECT menu (Factory setting: AUTO)

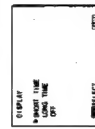


Select the color system of the input signal.

AUTO: Input color systems are automatically selected.

When you input NTSC signal, comb filter will activate. To monitor NTSC signal with trap filter, select NTSC in this menu.

2b DISPLAY menu (Factory setting: SHORT TIME)

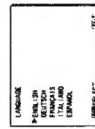


Select the period of displaying the color system of the current input signals.

The items have the following functions.

| Item | Function |
|------------|--|
| SHORT TIME | To display the kind of color system being used for several seconds on the screen each time you change the signal input. |
| LONG TIME | To display the kind of color system being used for approximately five minutes on the screen each time you change the signal input. |
| OFF | Not to display the kind of the color system. |

2c LANGUAGE menu (Factory setting: ENGLISH)



Select the menu language among the five languages, English, German, French, Italian and Spanish.

Using On-Screen Menus

2d USER MEMORY menu

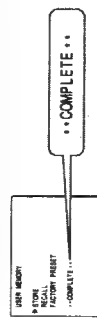


The items have the following functions.

| Item | Function |
|----------------|---|
| STORE | To store all adjustments and settings currently set on each menu into the internal memory. |
| RECALL | To recall all adjustments and settings currently stored in the internal memory. |
| FACTORY PRESET | To reset the adjustments and settings currently set on each menu to the factory settings. ^{a)} |

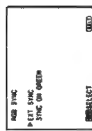
a) The current settings and adjusted values are reset to the factory settings. The values and settings adjusted and stored in the internal memory by using the STORE menu, however, are not changed. To reset internally stored adjusted values and settings to the factory setting, select FACTORY PRESET, first, then select STORE.

When you press the ENTER (⏏) button, the following message is displayed for about two seconds. The currently selected item becomes active when pressing the ENTER (⏏) button.



The following menus are provided with the PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only.

3a RGB SYNC menu (Factory setting: EXT SYNC)



Select the sync signal when the RGB signals are input. The items have the following functions.

| Item | Function |
|---------------|---|
| EXT SYNC | To operate the monitor on an external sync signal fed through the RGB SYNC connector. |
| SYNC ON GREEN | To operate the monitor on the sync signal from the G channel. |

3b ASPECT RATIO menu (Factory setting: 4:3)

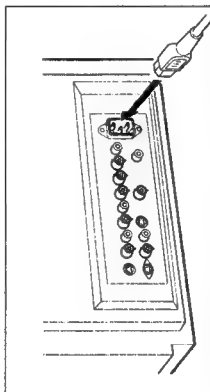


Select the aspect ratio of the screen.

Connections

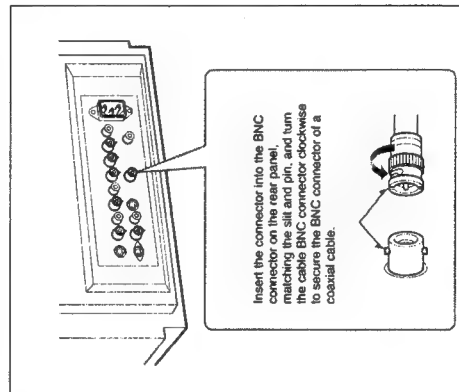
How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the ~AC IN connector and to a wall outlet.



How to Connect a Cable to a BNC Connector

Connect the coaxial cable with the BNC connectors to the BNC connectors on the rear panel as illustrated below.



Specifications

Video signal

Color system NTSC, PAL, SECAM, NTSC-4.43
Resolution 500 TV lines
Frequency response
LINE 6 MHz±3dB (Y signal)
RGB 6 MHz±3dB

Picture performance

Normal scan 7 % over scan of CRT effective screen area
H. linearity Less than 8.0 % (typical)
V. linearity Less than 7.0 % (typical)
Color temperature D65

Inputs

LINE A/B Y/C IN 4-pin mini-DIN(x2)
See the pin assignment on the next page.
VIDEO IN BNC connector (x2), 1 Vp-p ±3 dB, -6 dB, sync negative
AUDIO IN Phono jack (x2), -5 dBu^{a)}, more than 47 kilo-ohms
RGB (PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only) BNC connector (x3)
R/G/B 0.7 Vp-p ±3 dB, -6 dB
Sync on green: 0.3 Vp-p, negative
AUDIO IN Phono jack (x1), -5 dBu^{a)}, more than 47 kilo-ohms
EXT SYNC BNC connector (x1)
4 Vp-p ±3 dB, -6 dB, sync negative
REMOTE (PVM-14N6A/14N6E/14N6U/20N6A/20N6E/20N6U only) Phono jack (x1)
Open: currently selected input signal
Low state (GND): input signal selected prior to the current input signal

a) 0 dBu = 0.775 V_{r.m.s.}

Specifications

Outputs

| | |
|-----------|--|
| LINE A | 4-pin mini-DIN (x1) loop-through, Automatic 75 ohms termination |
| VIDEO OUT | BNC connector (x1) loop-through, Automatic 75 ohms termination |
| AUDIO OUT | Phono jack (x1) loop-through Output level: 0.8 W |

General

| | |
|-------------------|--|
| CRT | PVM-14N5A/14N5E/14N5U/ 14N6A/14N6E/14N6U: 14-inch CRT with P-22 phosphor Visible picture size 340 mm (13-inch measured diagonally) |
| | PVM-20N5A/20N5E/20N5U/ 20N6A/20N6E/20N6U: 20-inch CRT with P-22 phosphor Visible picture size 490 mm (19-inch measured diagonally) |
| Power consumption | PVM-14N5A/14N5E/14N5U: 80W PVM-14N6A/14N6E/14N6U: 80W PVM-20N5U/20N6U: 100W PVM-20N5A/20N6A/20N5E/ 20N6E: 105 W |

Power requirements

100 to 240 V AC, 50/60Hz
*For use of PVM-14N5U/14N6U/
20N5U/20N6U*, operate these
monitors on 120 V AC.

Operating conditions

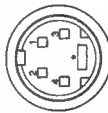
| | |
|----------------------------------|----------------------------|
| Temperature | 0 to +35°C |
| Humidity | 0 to 90% (no condensation) |
| Transport and Storage conditions | |
| Temperature | -10 to +40°C |
| Humidity | 0 to 90% |

Dimensions (w/h/d)

| | | | |
|---|---|------|---|
| PVM-14N5A/14N5E/14N5U/ 14N6A/14N6E/14N6U: 346 x 340 x 414 mm (13 3/4 x 13 3/4 x 16 1/2 inches) | PVM-20N5A/20N5E/20N5U/ 20N6A/20N6E/20N6U: 449 x 441 x 502 mm (17 3/4 x 17 3/4 x 19 1/2 inches) | Mass | PVM-14N5A/14N5E/14N5U/ 14N6A/14N6E/14N6U: Approx. 15 kg (33 lb 1 oz) PVM-20N5A/20N5E/20N5U/ 20N6A/20N6E/20N6U: Approx. 28 kg (61 lb 12 oz) |
| Accessory supplied | | | AC power cord (1) Operating Instructions (1) |

Pin assignment

Y/C IN connector (4-pin mini-DIN)



| Pin No. | Signal | Description |
|---------|-------------------------|--|
| 1 | Y-input | 1 Vp-p, sync negative, 75 ohms |
| 2 | CHROMA subcarrier-input | 0.286 Vp-p (NTSC), 300m Vp-p (PAL), burst Delay time between Y and C: within 0 ± 100 nsec., 75 ohms |
| 3 | GND for Y-input | GND |
| 4 | GND for CHROMA-input | GND |

Design and specifications are subject to change without notice.

Troubleshooting

This section may help you isolate the problem. Should the problem persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

| Symptom | Possible causes and remedies |
|---|---|
| If colors are not accurately reproduced | The monitor input signal is deviated from the color system specifications (i.e. signals from VCRs). Proceed as follows to correct this phenomenon. 1 Confirm the color system of the input signal. 2 Select the same color system as that of the input signal on the COLOR SELECT menu. If the problem remains unsolved after corresponding color system is selected, briefly turn OFF the power, then turn ON the monitor again. |

Trinitron®
Color Video Monitor

| | | |
|----------------------|-----------|----|
| Instructions for Use | Page 2 | EN |
| Mode d'emploi | Page 18 | F |
| Gebrauchsanweisung | Seite 34 | D |
| Instrucciones de uso | Página 50 | E |
| Istruzioni per l'uso | Pagina 66 | I |
| 使用说明书 | 82 页 | C |

Trinitron
PVM-14N5MDE

© 1988 by Sony Corporation

Owner's Record

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____
Serial No. _____

WARNING

- To prevent fire or shock hazard, do not expose the unit to rain or moisture.
- Dangerously high voltage are present inside the unit.
- Do not open the cabinet. Refer servicing to qualified personnel only.

In the event of a malfunction or when maintenance is necessary, consult an authorized Sony dealer.

Power Switch

The power switch is a functional switch only. To isolate the set from the mains supply remove the mains plug from the wall socket.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in the United Kingdom

WARNING
THIS APPARATUS MUST BE EARTHED

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

- Green-and-yellow: Earth
- Blue: Neutral
- Brown: Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \downarrow or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Ensure that your equipment is connected correctly - If you are in any doubt consult a qualified electrician.

This unit contains substances which can pollute the environment if disposed carelessly. Please contact our nearest office or your local environmental office in case of disposal of this unit.

ATTENTION:

Picture distortion may occur if this monitor is positioned in close proximity to any equipment emitting electromagnetic radiation.

Precaution

On safety

- Operate the unit only with a power source as specified in "Specifications" section.
- The nameplate indicating operating voltage, power consumption, etc., is located at the rear.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Do not drop or place heavy objects on the power cord. If the power cord is damaged, turn off the power immediately. It is dangerous to use the unit with a damaged power cord.
- Unplug the unit from the wall outlet if it is not to be used for several days or more.
- Disconnect the power cord from the AC outlet by grasping the plug, not by pulling the cord.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.

On installation

- Allow adequate air circulation to prevent internal heat build-up.
Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.

On cleaning

To keep the unit looking brand-new, periodically clean it with a mild detergent solution. Never use strong solvents such as thinner or benzine, or abrasive cleansers since they will damage the cabinet. As a safety precaution, unplug the unit before cleaning it.

On repacking

Do not throw away the carton and packing materials. They make an ideal container to transport the unit. If you have any questions about this unit, contact your authorized Sony dealer.

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About this manual

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Attention - when the product is installed in a rack:

- Elevated operating ambient temperature**
If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient.
Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature of 0 to +40°C (32 to 104°F).
- Reduced air flow**
Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- Mechanical loading**
Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- Circuit overloading**
Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring.
Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable earthing**
Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

Features

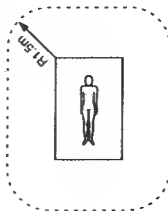
Symbols on the unit

Be sure to connect the AC power cord to a grounded outlet.

Important safeguards/notices for use in the medical environments

- 1 All the equipments connected to this unit shall be certified according to Standard IEC601-1, IEC950, IEC65 or other IEC/ISO Standards applicable to the equipments.
- 2 When this unit is used together with other equipment in the patient area*, the equipment shall be either powered by an isolation transformer or connected via an additional protective earth terminal to system ground unless it is certified according to Standard IEC601-1 and IEC601-1-1.

* Patient Area



- 3 The leakage current could increase when connected to other equipment.
- 4 The operator should take precautions to avoid touching the rear panel input and output circuitry and the patient at the same time.
- 5 Model PYM-14N5MDE is a video monitor intended for use in a medical environment to display video pictures from cameras or other video system.

| Symbol | Location | This symbol indicates |
|--------|-----------------|---|
| | Front panel | Main power switch. Press to turn the monitor on or off. |
| | Rear panel | The equipotential terminal which brings the various parts of a system to the same potential. |
| | Inside the unit | Protective earth |
| | Rear panel | Alternating current |
| | Inside the unit | Presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient to constitute a risk of electric shock. |
| | Rear panel | Attention, consult ACCOMPANYING DOCUMENTS |

Picture

Fine pitch Trinitron® picture tube
The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.

Comb filter
When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.

Beam current feedback circuit
The built-in beam current feedback circuit assures stable white balance.

Four color system available
The monitor can display NTSC, PAL, SECAM and NTSC-M signals. The appropriate color system is selected automatically.

Input

Y/C input connectors
The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector eliminating the interference between the two signals, which tends to occur in a composite video signal, ensuring video quality.

Automatic termination (connector with -V- mark only)
The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connector. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

Functions

On-screen menus
You can set monitor operation settings by using the on-screen menus.

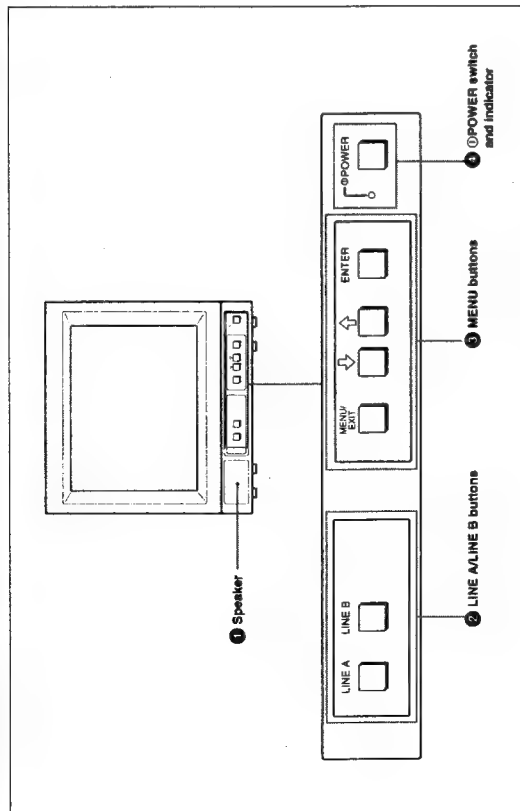
EIA standard 19-inch rack mounting
By using an MB-502B mounting bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack.
For details on mounting, refer to the instruction manuals supplied with the mounting bracket kit.

Side covers
The monitor can be covered with side covers. The side covers that protect the ventilation holes from splashes (of medicines, etc.) as much as possible.

- 1) Trinitron
"Trinitron" is a registered trademark of Sony Corporation.
- 2) NTSC-M
The NTSC-M system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43MHz. When an NTSC recorded video program is played back with a Trident (PAL/SECAM/NTSC-M) VTR, the NTSC-M signal is output.

Location and Function of Parts and Controls

Front



1 Speaker

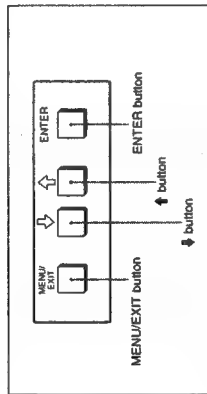
Press to select the program to be monitored.

| Input signal | Press |
|---|--------|
| Signal fed through the LINE A connector | LINE A |
| Signal fed through the LINE B connector | LINE B |

3 MENU buttons

Press to make the menu appear.

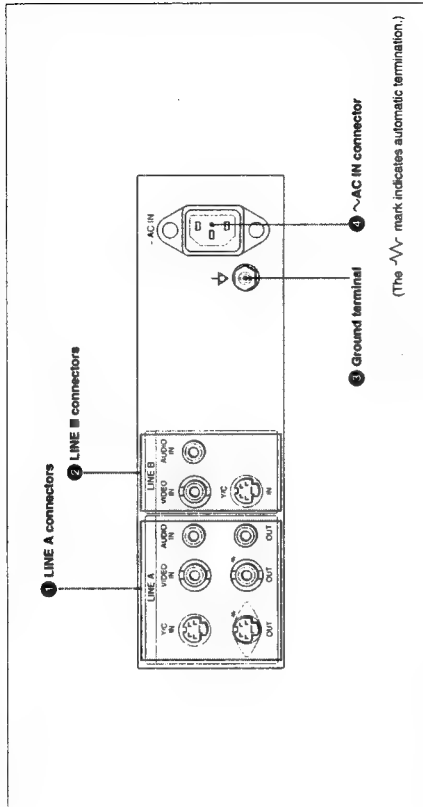
For detailed information on MENU buttons, see "Operation through On-Screen Menus" on page 10.



4 POWER switch and indicator

Press to turn the monitor on. The indicator lights in green.
To turn the power off, press this again.

Rear Panel



1 LINE A connectors

Input connectors for the composite video, Y/C separate video and audio signals and their loop-through output connectors.

To monitor the input signal fed through these connectors, press the LINE A button on the front panel.

Note

The Y/C IN connector has priority over the VIDEO IN connector.

When connecting the cable to the Y/C IN connector, the Y/C IN connector is automatically selected and the VIDEO IN connector is disconnected even if the cable is connected.

Y/C IN connector (4-pin mini-DIN)

Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

Y/C OUT connector (4-pin mini-DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VCR or another monitor.

When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

VIDEO IN connector (BNC-type)

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

VIDEO OUT connector (BNC-type)

Loop-through output connector of the VIDEO IN connector. Connect to the video input connector for a VCR or another monitor.

When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN connector (phono jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

AUDIO OUT connector (phono jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VCR or another monitor.

Location and Function of Parts and Controls

② LINE B connectors

Input connectors for the composite video, Y/C separate video and audio signals.

To monitor the input signal fed through these connectors, press the LINE B button on the front panel.

Y/C IN connector (4-pin mini-DIN)

Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

VIDEO IN connector (BNC-type)

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

AUDIO IN connector (phono jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

⑤ Ground (▽) terminal

Connect a GND cable.

④ ~AC IN (inlet) connector

Connect the supplied AC power cord to this connector and to a wall outlet.

Using On-Screen Menus

You can make various settings and adjustments of the monitor using the on-screen menus.

On-Screen Menu Configuration

The on-screen menu is composed of the following two menu types.

Item selection menu

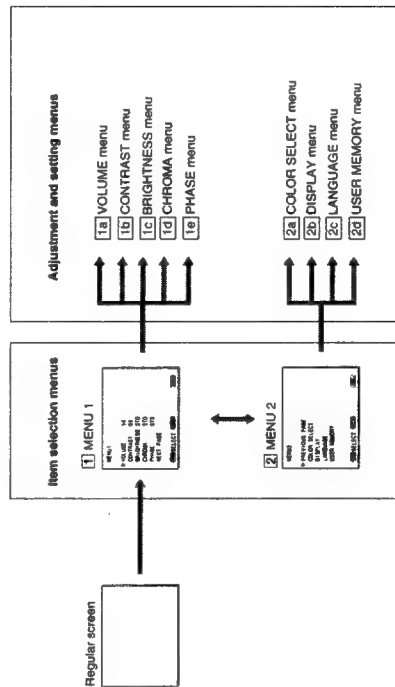
You can select an adjustment and setting item such as sound volume, contrast, brightness, color intensity, color system and menu language by using the \uparrow and \downarrow ENTER buttons.

Adjustment and setting menus

You can make desired adjustment or setting on corresponding menu. The settings and adjustments remain unchanged until next adjustment even if you turn off the power.

To reset the settings and adjustments to the factory-settings, select "FACTORY PRESET" from $\boxed{2d}$ USER MEMORY menu.

On-screen menu tree-chart

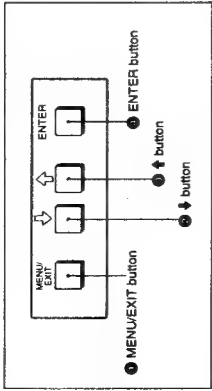


Using On-Screen Menus

Operation through On-Screen Menus

Menu operation buttons

There are four menu operation buttons on the front panel of the monitor.

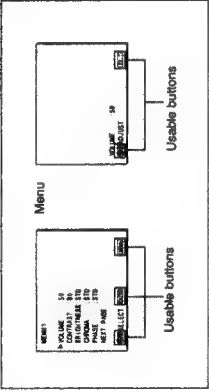


Button functions depend on the displayed menu. The following table shows the button functions on the item selection menus and adjustment and setting menus.

| Button | Function on the item selection menus | Function on the adjustment and setting menus |
|-----------|--------------------------------------|--|
| MENU/EXIT | To return to the regular screen. | To return to the item selection menu. |
| ↑ | To move the cursor downward. | To decrease value/select item. |
| ↓ | To move the cursor upward. | To increase value/select item. |
| ENTER | To decide a selected item. | To decide a selected item ^{a)} . |

a) You can use the ENTER button only on the USER MEMORY menu of the adjustment and setting menus.

Usable buttons depend on the displayed menu. Buttons that can be used on the menu are displayed at the bottom line of the screen. You can perform menu operation using displayed buttons.



Display of the usable menu operation buttons

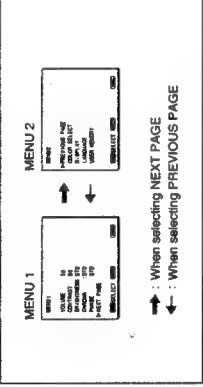
Operating procedures

To display the menu, follow this procedure.

- 1 Press the MENU/EXIT (M) button.
MENU 1 appears.
To select items other than ones not displayed on MENU 1
Select MENU 2.
For details of how to select, see the "To change the item selection menus" described later.
- 2 Move the cursor to the desired item by pressing the ↑ or ↓ (U, D) button.
- 3 Press the ENTER (E) button.
The adjustment and setting menu selected in step 2 appears.

For detailed information of menus, see "Functions of On-Screen Menus" on page 11.

To change the item selection menus
Select NEXT PAGE on the menu to display next item selection menu and PREVIOUS PAGE on the menu to display the previous item selection menu.



How to change the item selection menu

To return to the item selection menu from the adjustment and setting menus
Press the MENU/EXIT (M) button on the currently displayed adjustment and setting menu.

To close the menu (to return to the regular screen)
Press the MENU/EXIT (M) button when the item selection menu is displayed. The on-screen menu disappears and the regular screen appears.

Functions of On-Screen Menus

Item selection menus

| 1 MENU 1 | |
|--|-------------------------------|
| MENU 1 menu has the following selection items. | |
| Item | Functions |
| VOLUME | To obtain the desired volume |
| CONTRAST | To adjust the contrast |
| BRIGHTNESS | To adjust the brightness |
| CHROMA | To adjust the color intensity |
| PHASE | To adjust the phase |

| 2 MENU 2 | |
|--|---|
| MENU 2 menu has the following selection items. | |
| Item | Function |
| COLOR SELECT | To select the color system of the input signal |
| DISPLAY | To select period of display |
| LANGUAGE | To select the menu language |
| USER MEMORY | To store and recall the values and settings adjusted by a user, and recall the factory-settings |

Adjustment and setting menu

1a VOLUME menu (Factory setting: 50)



Adjust the speaker volume.
The volume increases by pressing the ↑ button.
The volume decreases by pressing the ↓ button.

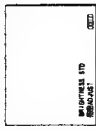
1b CONTRAST menu (Factory setting: 50)



Adjust the contrast of the screen.
The contrast becomes higher by pressing the ↑ button.
The contrast becomes lower by pressing the ↓ button.

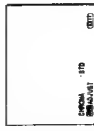
Using On-Screen Menus

1c BRIGHTNESS menu (Factory setting: STD)



Adjust the brightness of the screen. The screen becomes brighter by pressing the \uparrow button. The screen becomes darker by pressing the \downarrow button.

1d CHROMA menu (Factory setting: STD)



Adjust the color intensity of the video signal. The color intensity strengthens by pressing the \uparrow button. The color intensity weakens by pressing the \downarrow button.

Note

The color intensity of an composite video signal or a Y/C separate signal can be corrected on this menu.

1e PHASE menu (Factory setting: STD)

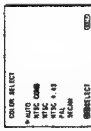


Adjust the phase of the video signals. The skin tone becomes greenish by pressing the \uparrow button. The skin tone becomes purplish by pressing the \downarrow button.

Note

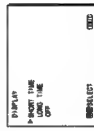
The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal cannot be corrected.

2a COLOR SELECT menu (Factory setting: AUTO)



Select the color system of the input signal. AUTO: Input color systems are automatically selected. When you input NTSC signal, comb filter will activate. To monitor NTSC signal with trap filter, select NTSC in this menu.

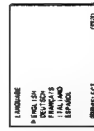
2b DISPLAY menu (Factory setting: SHORT TIME)



Select the period of displaying the color system of the current input signals. The items have the following functions.

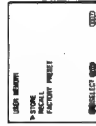
| Item | Function |
|------------|--|
| SHORT TIME | To display the kind of color system being used for several seconds on the screen each time you change the signal input. |
| LONG TIME | To display the kind of color system being used for approximately five minutes on the screen each time you change the signal input. |
| OFF | Not to display the kind of the color system. |

2c LANGUAGE menu (Factory setting: ENGLISH)



Select the menu language among the five languages, English, German, French, Italian and Spanish.

2d USER MEMORY menu

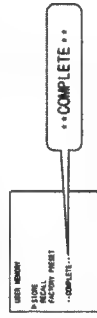


The items have the following functions.

| Item | Function |
|----------------|--|
| STORE | To store all adjustments and settings currently set on each menu into the internal memory. |
| RECALL | To recall all adjustments and settings currently stored in the internal memory. |
| FACTORY PRESET | To reset the adjustments and settings currently set on each menu to the factory settings. a) |

a) The current settings and adjusted values are reset to the factory settings. The values and settings adjusted and stored in the internal memory by using the STORE menu, however, are not changed. To reset internally stored adjusted values and settings to the factory setting, select FACTORY PRESET. First, then select STORE.

When you press the ENTER (4) button, the following message is displayed for about two seconds. The currently selected item becomes active when pressing the ENTER (4) button.



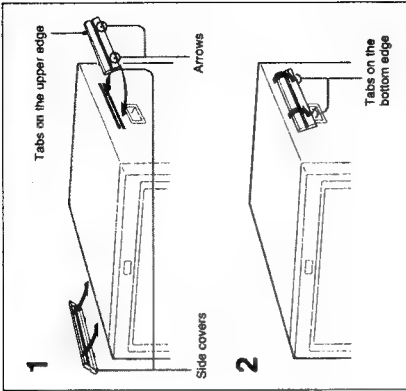
Using the Last Control Function

If you press the \uparrow or \downarrow button when the menu is not displayed, one of the following menu items that you adjusted last time is displayed.

- VOLUME
- CONTRAST
- BRIGHTNESS
- CHROMA
- PHASE

Then you can adjust the item immediately.

Attaching the Side Covers



In order to protect the ventilation holes from splashes from medicines, etc., attach the supplied side covers as illustrated.

1 Hook the tabs on the upper edge into the ventilation holes, making sure that the arrows on the cover are facing down.

Note

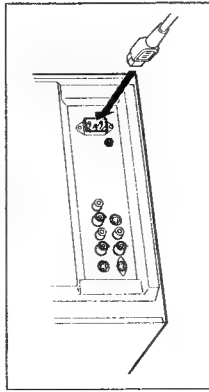
Attach the side covers on all ventilation holes.

2 Push up the tabs on the bottom edge and fit the cover into the lowest ventilation holes. Attach covers on both left and right vents.

Connections

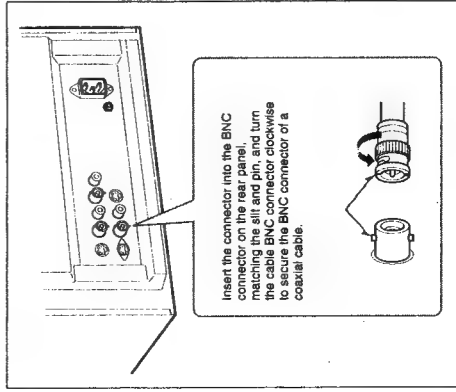
How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the ~AC IN connector and to a wall outlet.



How to Connect a Cable to a BNC Connector

Connect the coaxial cable with the BNC connectors to the BNC connectors on the rear panel as illustrated below.



Specifications

Video signal

Color system NTSC, PAL, SECAM, NTSC-A
Horizontal Resolution 500 TV lines
Frequency response
LINE 6 MHz±3dB (Y signal)

Picture performance

Normal scan 7 % over scan of CRT effective screen area
H. linearity Less than 8.0 % (typical)
V. linearity Less than 7.0 % (typical)
Color temperature D65

Inputs

LINE A/B 4-pin mini-DIN(x2)
Y/C IN See the pin assignment on the next page.
VIDEO IN BNC connector (x2), 1Vp-p ±3 dB, -6 dB, sync negative
AUDIO IN Phono jack (x2), -5 dBu^a, more than 47 kilo-ohms
a) 0 dBu = 0.775 V_{r.m.s.}

Outputs

LINE A Y/C OUT 4-pin mini-DIN (x1) loop-through, Automatic 75 ohms termination
VIDEO OUT BNC connector (x1) loop-through, Automatic 75 ohms termination
AUDIO OUT Phono jack (x1) loop-through
Speaker output Output level: 0.8 W

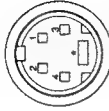
General

- Classification of equipment
 - Type of protection against electric shock: Class I equipment
 - * Standard evaluated to: EN 60 601-1, EN60 601-1-2 CSA C22.2 No.601.1 UL 2601-1
- Degree of protection against harmful ingress of water: Ordinary equipment
- Degree of safety of application in the presence of a flammable anesthetic mixture: Not protected equipment
- Mode of operation: Continuous operation
- Information concerning type and frequency of technical maintenance: Not need maintenance equipment
- Main power switch: Functional switch 14-inch CRT with P-22 phosphor

Design and specifications are subject to change without notice.

Pin assignment

Y/C IN connector (4-pin mini-DIN)



| Pin No. | Signal | Description |
|---------|-------------------------|---|
| 1 | Y-input | 1 Vp-p, sync negative, 75 ohms |
| 2 | CHROMA subcarrier-input | 0.286 Vp-p (NTSC), 300m Vp-p (PAL), burst Delay time between Y and C: within 0 ± 100 nsec., 75 ohms |
| 3 | GND for Y-input | GND |
| 4 | GND for CHROMA-input | GND |

Design and specifications are subject to change without notice.

Troubleshooting

SI1A Chassis

This section may help you isolate the problem. Should the problem persist, unplug the unit and contact your Sony dealer or local authorized Sony service facility.

| Symptom | Possible causes and remedies |
|---|--|
| If colors are not accurately reproduced | <p>The monitor input signal is deviated from the color system specifications (i.e. signals from VCRs).</p> <p>Proceed as follows to correct this phenomenon.</p> <p>1 Confirm the color system of the input signal.</p> <p>2 Select the same color system as that of the input signal on the COLOR SELECT menu.</p> <p>If the problem remains unsolved after corresponding color system is selected, briefly turn OFF the power, then turn ON the monitor again.</p> |

1-3. SSM-14N5 (A/E/U), SSM-20N5 (A/E/U)

3-884-152-11(2)

Trinitron®
Color Video Monitor

| | | |
|-------------------------|-----------|----|
| Operating Instructions | Page 2 | EN |
| Mode d'emploi | Page 14 | F |
| Bedienungsanleitung | Seite 26 | D |
| Manual de instrucciones | Página 38 | E |
| Istruzioni per l'uso | Pagina 50 | I |
| 使用说明书 | 62 页 | C |

Trinitron
SSM-14N5E/14N5U/14N5A
SSM-20N5E/20N5U/20N5A

© 1998 by Sony Corporation

The model and serial numbers are located at the rear. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

WARNING

**Dangerously high voltage are present inside the unit.
Do not open the cabinet. Refer servicing to qualified personnel only.**

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

If you have any questions about this unit, contact your authorized Sony dealer.

- SSM-14N5E/14N5U/14N5A (14-inch monitor)
- SSM-20N5E/20N5U/20N5A (20-inch monitor)

Illustrations of the video monitor are for the SSM-20N5E/20N5U/20N5A.

Features

Picture

Fine pitch Trinitron[®] picture tube

The fine pitch Trinitron tube provides a high resolution picture. Horizontal resolution is more than 500 TV lines at the center of the picture.

Comb filter

When NTSC video signals are received, a comb filter activates to make more accurate Y/C separation. This contributes to less of a decrease in resolution, cross color and cross luminance phenomena.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Four color system available

The monitor can display NTSC, PAL, SECAM, and NTSC-L₁L₂P signals. The appropriate color system is selected automatically.

Input

Y/C input connector

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, ensuring video quality.

Automatic termination (connector with Δ mark only)

The input connector is terminated at 75 ohms inside when no cable is connected to the loop-through output connector. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

Functions

On-screen menus

You can set monitor operation settings by using the on-screen menus.

EIA standard 19-inch rack mounting

By using an MB-502B mounting bracket (for a 14-inch monitor, not supplied) or SLR-103A slide rail (for a 20-inch monitor, not supplied), the monitor can be mounted in an EIA standard 19-inch rack.

Attention - when the product is installed in a rack:

- **Elevated operating ambient temperature**
If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient.
Therefore, consideration should be given to installing the equipment in an environment compatible with the manufacturer's maximum rated ambient temperature of 0 to +35 °C (Ttrra).
- **Reduced air flow**
Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised.
- **Mechanical loading**
Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.
- **Circuit overloading**
Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of circuits might have on overcurrent protection and supply wiring.
Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- **Reliable earthing**
Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g., use of power strips).

1) Trinitron

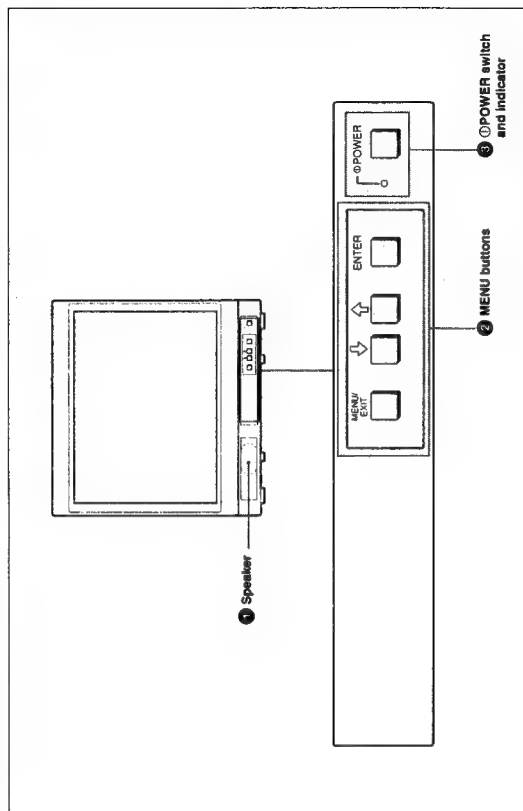
"Trinitron" is a registered trademark of Sony Corporation.

2) NTSC-L₁L₂P

The NTSC-L₁L₂P system refers to an NTSC color system in which the subcarrier frequency is modified to 4.43 MHz. When an NTSC recorded video program is played back with a Trident (PAL/SECAM/NTSC-L₁L₂P) VTR, the NTSC-L₁L₂P signal is output.

Location and Function of Parts and Controls

Front



1 Speaker

2 MENU buttons

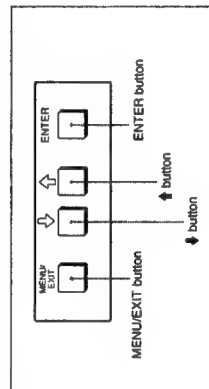
Press to make the menu appear.

For detailed information on MENU buttons, see "Operation through On-Screen Menus" on page 9.

3 POWER switch and indicator

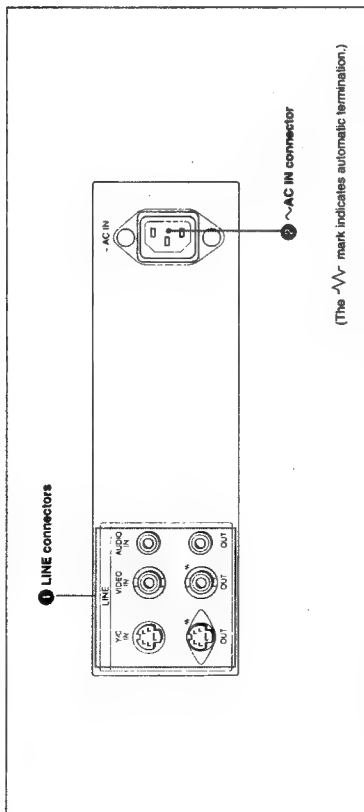
Press to turn the monitor on. The indicator lights in green.

To turn the power off, press this again.



Location and Function of Parts and Controls

Rear Panel



① LINE connectors

Input connectors for the composite video, Y/C separate video and audio signals and their loop-through output connectors.

Note

The Y/C IN connector has priority over the VIDEO IN connector. When connecting the cable to the Y/C IN connector, the Y/C IN connector is automatically selected and the VIDEO IN connector is disconnected even if the cable is connected.

Y/C IN connector (4-pin mini-DIN)

Connect to the Y/C separate output connector of a video camera, VCR or other video equipment.

Y/C OUT connector (4-pin mini-DIN)

Loop-through output of the Y/C IN connector. Connect to the Y/C separate input connector of a VCR or another monitor.

When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the Y/C IN connector is output from this connector.

VIDEO IN connector (BNC-type)

Connect to the video output connector of video equipment, such as a VCR or a color video camera. For a loop-through connection, connect to the video output connector of another monitor.

VIDEO OUT connector (BNC-type)

Loop-through output of the VIDEO IN connector. Connect to the video input connector for a VCR or another monitor.

When the cable is connected to this connector, the 75-ohm termination of the input is automatically released, and the signal input to the VIDEO IN connector is output from this connector.

AUDIO IN connector (phone jack)

Connect to the audio output connector of a VCR or other equipment. For a loop-through connection, connect to the audio output of another monitor.

AUDIO OUT connector (phone jack)

Loop-through output of the AUDIO IN connector. Connect to the audio input connector of a VCR or another monitor.

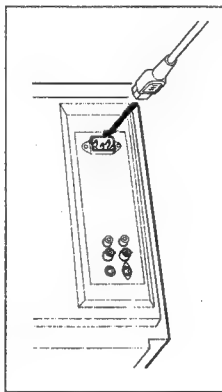
② ~AC IN (inlet) connector

Connect the supplied AC power cord to this connector and to a wall outlet.

Connections

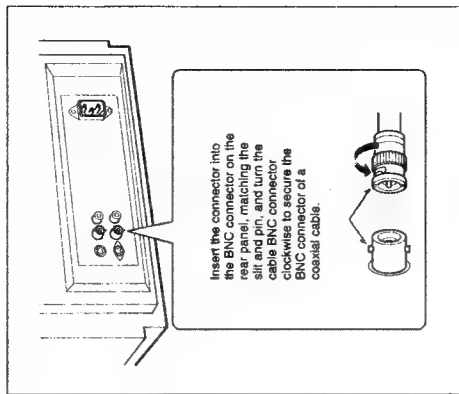
How to Connect the AC Power Cord

Connect the AC power cord (supplied) to the ~AC IN connector and to a wall outlet.



How to Connect a Cable to a BNC Connector

Connect the coaxial cable with the BNC connectors to the BNC connectors on the rear panel as illustrated below.



Using On-Screen Menus

You can make various settings and adjustments of the monitor using the on-screen menu.

On-Screen Menu Configuration

The on-screen menu is composed of the following two menu types.

Item selection menu

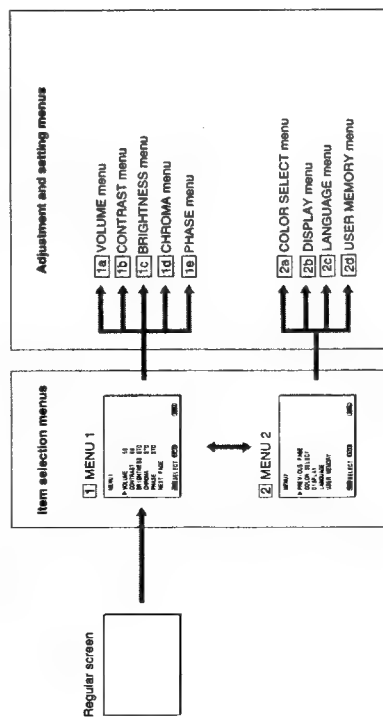
You can select an adjustment and setting item such as sound volume, contrast, brightness, color intensity, color system and menu language by using the \uparrow and \downarrow buttons.

Adjustment and setting menus

You can make desired adjustment or setting on corresponding menu. The settings and adjustments remain unchanged until next adjustment even if you turn off the power.

To reset the settings and adjustments to the factory settings, select "FACTORY PRESET" from $\boxed{24}$ USER MEMORY menu.

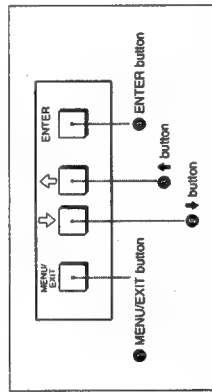
On-screen menu tree-chart



Operation through On-Screen Menus

Menu operation buttons

There are four menu operation buttons on the front panel of the monitor.

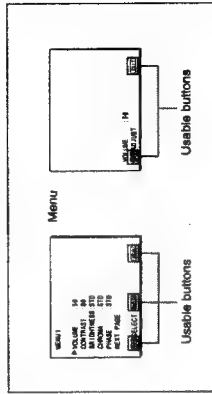


Button functions depend on the displayed menu. The following table shows the button functions on the item selection menu and adjustment and setting menus.

| Button | Function on the item selection menu | Function on the adjustment and setting menu |
|-----------------------|-------------------------------------|---|
| $\boxed{1}$ MENU/EXIT | To return to the regular screen. | To return to the item selection menu. |
| \uparrow | To move the cursor downward. | To decrease value/select item. |
| \downarrow | To move the cursor upward. | To increase value/select item. |
| $\boxed{24}$ ENTER | To decide a selected item. | To decide a selected item. |

a) You can use the ENTER button only on the $\boxed{24}$ USER MEMORY menu of the adjustment and setting menus.

Usable buttons depend on the displayed menu. Buttons that can be used on the menu are displayed at the bottom line of the screen. You can perform menu operation using displayed buttons.



Operating procedures

To display the menu, follow this procedure.

- 1 Press the MENU/EXIT ($\boxed{1}$) button.
 $\boxed{1}$ MENU 1 appears.

To select items other than ones not displayed on MENU 1
Select $\boxed{2}$ MENU 2.

For details of how to select, see the "To change the item selection menus" described later.

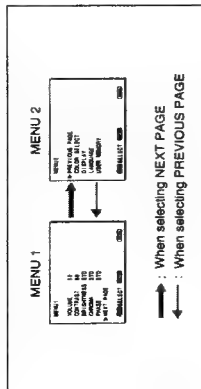
- 2 Move the cursor to the desired item by pressing the \uparrow or \downarrow button.

- 3 Press the ENTER ($\boxed{24}$) button.
The adjustment and setting menu selected in step 2 appears.

For detailed information of menus, see "Functions of On-Screen Menus" on page 10.

Using On-Screen Menus

To change the item selection menus
Select NEXT PAGE on the menu to display next item selection menu and PREVIOUS PAGE on the menu to display the previous item selection menu.



How to change the item selection menu

To return to the item selection menu from the adjustment and setting menus
Press the MENU/EXIT (⏻) button on the currently displayed adjustment and setting menu.

To close the menu (to return to the regular screen)
Press the MENU/EXIT (⏻) button when the item selection menu is displayed. The on-screen menu disappears and the regular screen appears.

Using the Last Control Function

If you press the ⬆ or ⬇ button when the menu is not displayed, one of the following menu items that you adjusted last time is displayed.

- VOLUME
- CONTRAST
- BRIGHTNESS
- CHROMA
- PHASE

Then you can adjust the item immediately.

Functions of On-Screen Menus

Item selection menus

1 MENU 1

MENU 1 menu has the following selection items.

| Item | Functions |
|------------|-------------------------------|
| VOLUME | To obtain the desired volume |
| CONTRAST | To adjust the contrast |
| BRIGHTNESS | To adjust the brightness |
| CHROMA | To adjust the color intensity |
| PHASE | To adjust the phase |

2 MENU 2

MENU 2 menu has the following selection items.

| Item | Function |
|--------------|---|
| COLOR SELECT | To select the color system of the input signal |
| DISPLAY | To select period of display |
| LANGUAGE | To select the menu language |
| USER MEMORY | To store and recall the values and settings adjusted by a user, and recall the factory settings |

Adjustment and setting menu

1a VOLUME menu (Factory setting: 50)



Adjust the speaker volume.
The volume increases by pressing the ⬆ button.
The volume decreases by pressing the ⬇ button.

1b CONTRAST menu (Factory setting: 80)



Adjust the contrast of the screen.
The contrast becomes higher by pressing the ⬆ button.
The contrast becomes lower by pressing the ⬇ button.

1c BRIGHTNESS menu (Factory setting: STD)



Adjust the brightness of the screen.
The screen becomes brighter by pressing the ⬆ button.
The screen becomes darker by pressing the ⬇ button.

1d CHROMA menu (Factory setting: STD)



Adjust the color intensity of the video signal.
The color intensity strengthens by pressing the ⬆ button.
The color intensity weakens by pressing the ⬇ button.

1e PHASE menu (Factory setting: STD)



Adjust the phase of the video signals.
The skin tone becomes greenish by pressing the ⬆ button.
The skin tone becomes purplish by pressing the ⬇ button.

Note

The phase of an NTSC composite video signal or a Y/C separate signal can be corrected on this menu. The PAL composite video signal or a Y/C separate signal cannot be corrected.

2a COLOR SELECT menu (Factory setting: AUTO)



Select the color system of the input signal.
AUTO: Input color systems are automatically selected. When you input NTSC signal, comb filter will activate. To monitor NTSC signal with trap filter, select NTSC in this menu.
The factory setting of the COLOR SELECT menu depends on destination.

SSM-14N5U/20N3U: NTSC
SSM-14N5E/20N3E/14N5A/20N5A: PAL

2b DISPLAY menu (Factory setting: SHORT TIME)

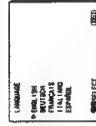


Select the period of displaying the color system of the current input signals.

The items have the following functions.

| Item | Function |
|------------|--|
| SHORT TIME | To display the kind of color system being used for several seconds on the screen each time you change the signal input. |
| LONG TIME | To display the kind of color system being used for approximately five minutes on the screen each time you change the signal input. |
| OFF | Not to display the kind of the color system. |

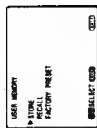
2c LANGUAGE menu (Factory setting: ENGLISH)



Select the menu language among the five languages; English, German, French, Italian and Spanish.

Using On-Screen Menus

2d USER MEMORY menu

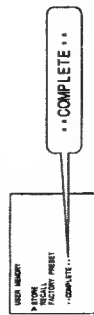


The items have the following functions.

| Item | Function |
|----------------|---|
| STORE | To store all adjustments and settings currently set on each menu into the internal memory. |
| RECALL | To recall all adjustments and settings currently stored in the internal memory. |
| FACTORY PRESET | To reset the adjustments and settings currently set on each menu to the factory settings. ^{a)} |

a) The current settings and adjusted values are reset to the factory settings. The values and settings adjusted and stored in the internal memory by using the STORE menu, however, are not changed. To reset internally stored adjusted values and settings to the factory setting, select FACTORY PRESET. First, then select STORE. The color system of the input signal is reset to AUTO even though the factory setting on the COLOR SELECT menu is NTSC or PAL.

When you press the ENTER (●) button, the following message is displayed for about two seconds. The currently selected item becomes active when pressing the ENTER (●) button.



Specifications

Video signal

| | |
|--------------------|--|
| Color system | NTSC, PAL, SECAM, NTSC-A ¹⁾ |
| Resolution | 500 TV lines |
| Frequency response | 6 MHz±3dB (Y signal) |

Picture performance

| | |
|-------------------|--|
| Normal scan | 7 % over scan of CRT effective screen area |
| H. linearity | Less than 8.0 % (typical) |
| V. linearity | Less than 7.0 % (typical) |
| Color temperature | D65 |

Inputs

| | |
|----------|--|
| LINE | 4-pin mini-DIN (×1) |
| Y/C IN | See the pin assignment on this page. |
| VIDEO IN | BNC connector (×1), 1Vp-p ±3 dB, |
| AUDIO IN | Phono jack (×1), -5 dBu ^{a)} , more than 47 kilo-ohms |

a) 0 dBu = 0.775 V_{r.m.s.}

Outputs

| | |
|-----------|---|
| LINE | 4-pin mini-DIN (×1) loop-through, Automatic 75 ohms termination |
| VIDEO OUT | BNC connector (×1) loop-through, Automatic 75 ohms termination |
| AUDIO OUT | Phono jack (×1) loop-through, Output level: 0.8 W |

General

| | |
|-----|--|
| CRT | SSM-14N5E/14N5U/14N5A: 14-inch CRT with P-22 phosphor visible picture size 340 mm (13-inch measured diagonally) SSM-20N5E/20N5U/20N5A: 20-inch CRT with P-22 phosphor visible picture size 490 mm (19-inch measured diagonally) |
|-----|--|

Power consumption

| | |
|------------------------|-------|
| SSM-14N5E/14N5U/14N5A: | 80W |
| SSM-20N5U: | 100 W |
| SSM-20N5E/20N5A: | 105W |

Power requirements

100 to 240 V AC, 50/60Hz
^{a)}For use of SSM-14N5U/20N5U:
 operate these monitors on 120 V AC.

Operating conditions

| | |
|----------------------------------|----------------------------|
| Temperature | 0 to +35°C |
| Humidity | 0 to 90% (no condensation) |
| Transport and Storage conditions | Temperature -10 to +40°C |
| Humidity | 0 to 90% |

Dimensions (w/h/d)

| | |
|------------------------|--|
| SSM-14N5E/14N5U/14N5A: | 346 × 340 × 414 mm (13½ × 13½ × 16½ inches) |
| SSM-20N5E/20N5U/20N5A: | 449 × 441 × 502 mm (17½ × 17½ × 19½ inches) |

Mass

| | |
|------------------------|-----------------------------|
| SSM-14N5E/14N5U/14N5A: | Approx. 15 kg (33 lb 1 oz) |
| SSM-20N5E/20N5U/20N5A: | Approx. 28 kg (61 lb 12 oz) |

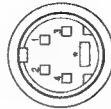
Accessory supplied AC power cord (1)

Operating Instructions (1)

5

Pin assignment

Y/C IN connector (4-pin mini-DIN)



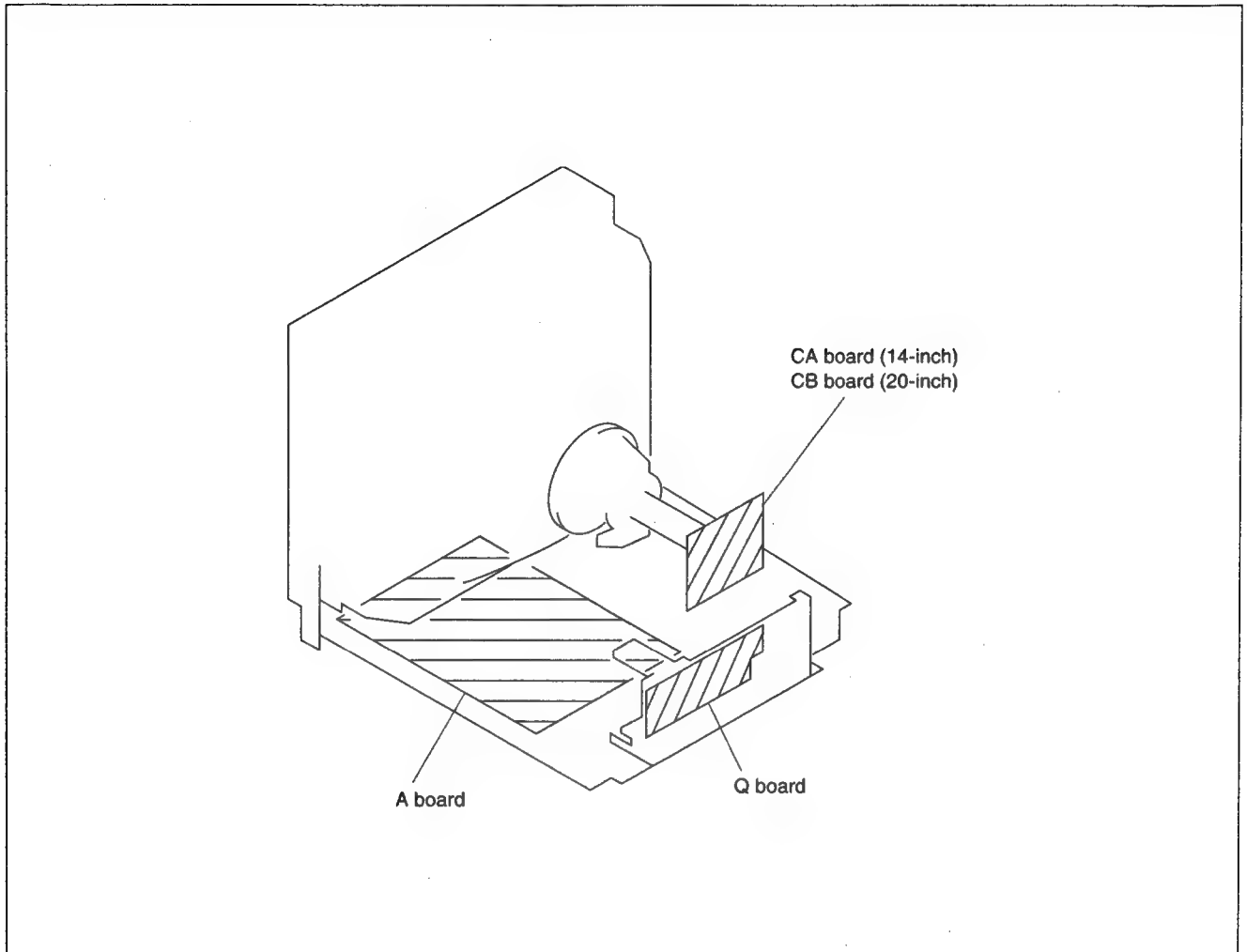
| Pin No. | Signal | Description |
|---------|-------------------------|--|
| 1 | Y-input | 1 Vp-p, sync negative, 75 ohms |
| 2 | CHROMA subcarrier-input | 0.286 Vp-p (NTSC), 300m Vp-p (PAL), burst Delay time between Y and C: within 0 ± 100 nsec., 75 ohms |
| 3 | GND for Y-input | GND |
| 4 | GND for CHROMA-input | GND |

Design and specifications are subject to change without notice.

SECTION 2

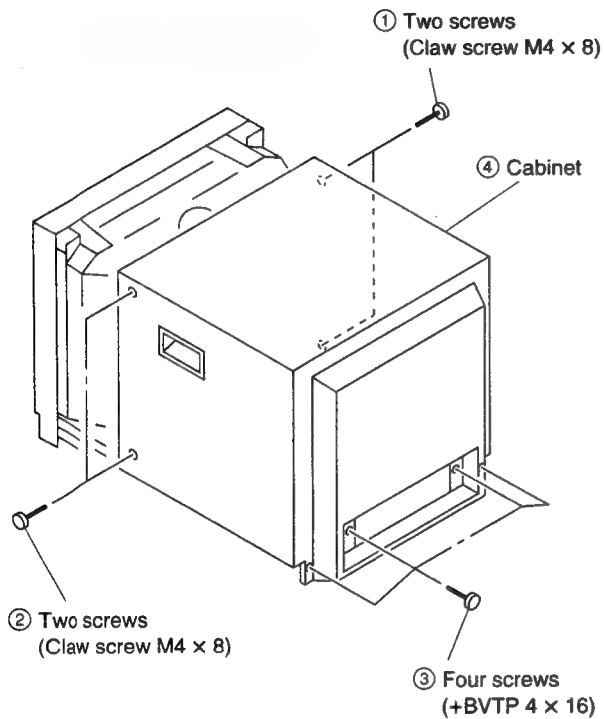
SERVICE INFORMATION

2-1. CIRCUIT BOARDS LOCATION

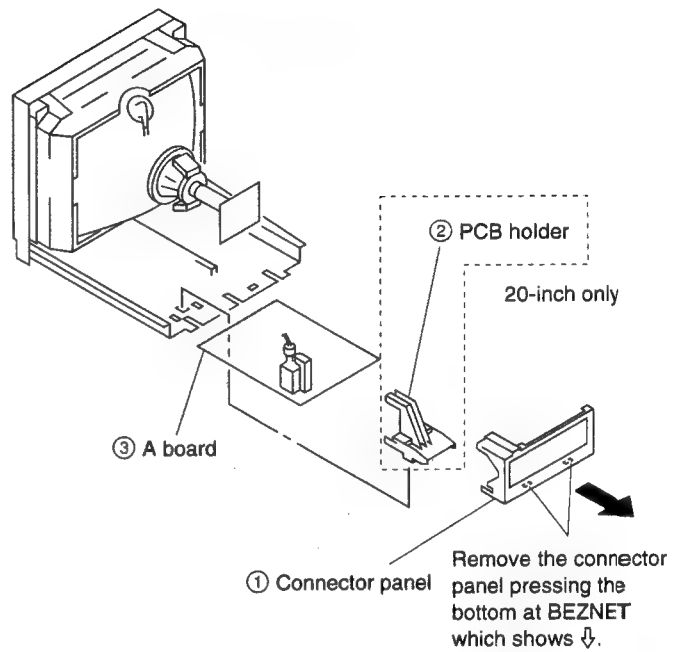


2-2. DISASSEMBLY

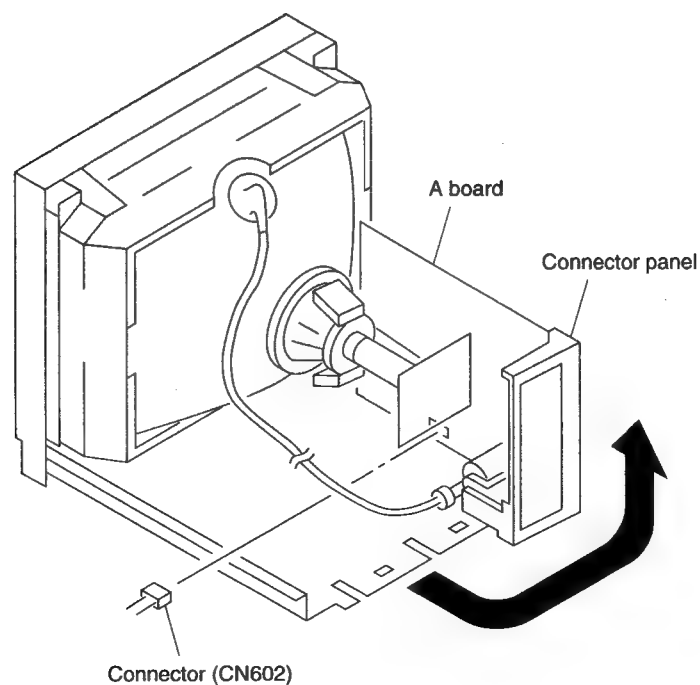
2-2-1. Cabinet Removal



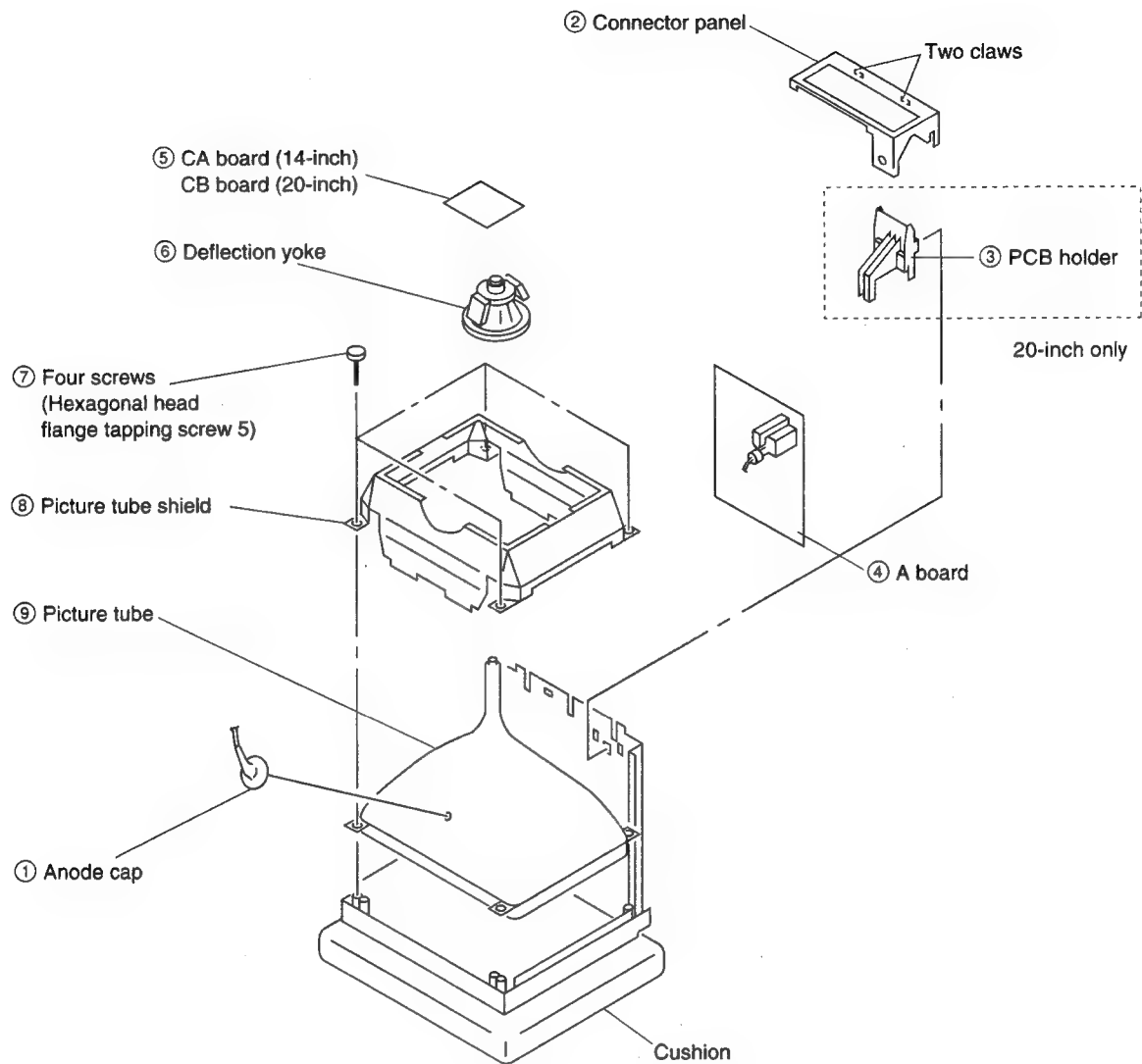
2-2-2. A Board Removal



2-2-3. Service Position



2-2-4. Picture Tube Removal

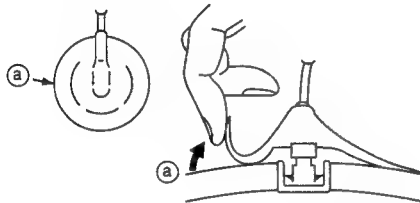


2-2-5. Removal of Anode-cap

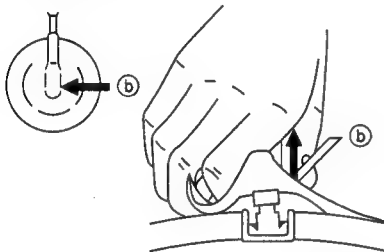
Note: Short circuit the anode of the picture tube and the anode cap to the metal chassis, picture tube shield or carbon painted on the picture tube, after removing the anode.

1. Removing Procedures

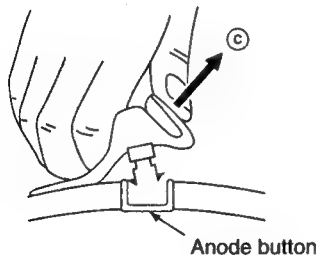
- (1) Turn up one side of the rubber cap in the direction indicated by the arrow (a).



- (2) Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).

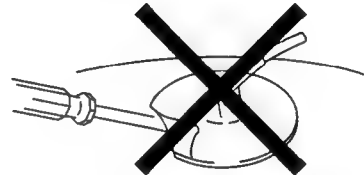
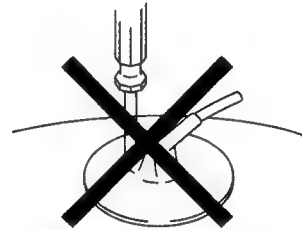


- (3) When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).



2. Handling Precautions

- (1) Don't hurt the surface of anode-caps with sharp shaped material!
- (2) Don't press the rubber hardly not to hurt inside of anode-caps!
A material fitting called as shatter-hook terminal is built in the rubber.
- (3) Don't turn the foot of rubber over hardly!
The shatter-hook terminal will stick out or hurt the rubber.



SECTION 3 SET-UP ADJUSTMENTS

3-1. PREPARATIONS (1)

Tools required

- Oscilloscope
- Digital multimeter
- Degausser
- Video signal generator
- Variable AC power supply (or NF power supply)
- DC power supply
- Ammeter

Note: Perform the following adjustments 5 minutes after turning on the power.

Service Mode

This unit is provided with a service switch on the front panel for various servicing adjustments. The following describes how to use the switch.

1. Setting the Service Mode

With no menus displayed, press the **ENTER** and **MENU** keys simultaneously. When Ver*** is displayed on the screen, press the **ENTER** key twice.

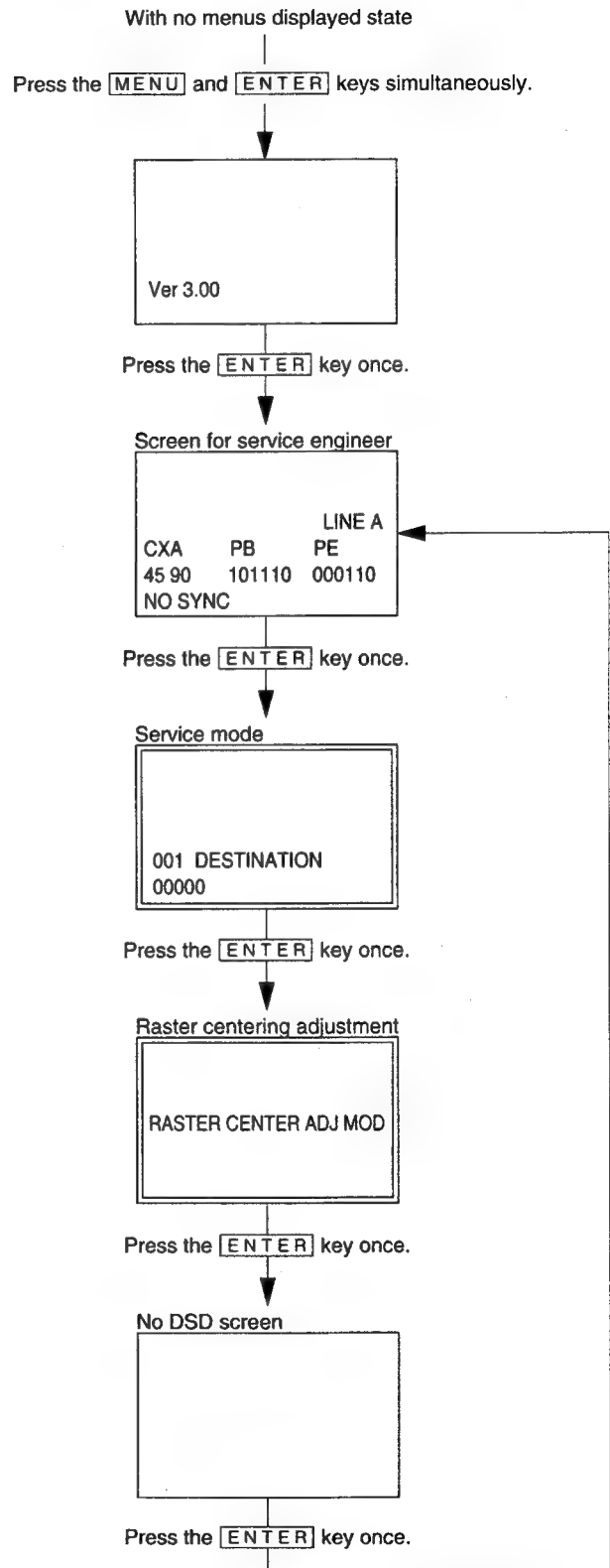
2. Displaying the Service Mode

| | |
|-----|-----|
| (4) | |
| (1) | (2) |
| (3) | |

Range of Service Mode Displays

- (1) Serial number from "0 to 102" given to each service item.
- (2) Name of service item.
- (3) Adjustment data of the service item memorized in the RAM currently. Changing this value enables adjustments. Take note that if the adjustment values are not saved in the EPROM, they will be lost when the power is turned off or when the input is switched.
- (4) Guidance on saving.

Service Mode Screens



Note: Use the double solid lined screens () when servicing.

3. Exiting the Service Mode

To exit the service mode, switch to the raster center adjustment mode, and press the **ENTER** and **MENU** keys simultaneously.

4. Moving to the Desired Service Item

To go back to a previous service item, use the **MENU** + **↑** keys. To forward to a service item in front, use the **MENU** + **↓** keys. Pressing these keys continuously will move the cursor continuously.

5. Changing the Service Data

The adjustment data increases when the **↑** key is pressed and decreases when the **↓** key is pressed. Pressing these keys continuously will increase or decrease the value continuously.

6. Writing the Service Data

To write the data from the RAM to the EEPROM, press the **MENU** and **ENTER** keys once, check that **SAVE** is displayed at Guidance, and then press the **MENU** and **ENTER** keys again. Take note that when **SAVE** is displayed at Guidance, the items displayed as well as all data will be written.

7. Setting the Raster Centering Adjustment Mode

Press the **ENTER** key another time in the service mode.

Service Items of EEPROM Data

| No. String | Default Data | |
|----------------------|----------------------------|----------------------------|
| | 14-inch | 20-inch |
| 1 DESTINATION | U/C: 1 AEP: 2 AUS: 3 | U/C: 1 AEP: 2 AUS: 3 |
| 2 SHARP LEVEL | 4 | 4 |
| 3 SHARP F0 | 1 | 1 |
| 4 PRE/OVER SHOOT | 0 | 0 |
| 5 Y DLY NTSC COMB | 4 | 4 |
| 6 Y DLY NTSC CVBS | 4 | 4 |
| 7 Y DLY NTSC Y/C | 4 | 4 |
| 8 Y DLY NT443 CVBS | 4 | 4 |
| 9 Y DLY NT443 Y/C | 4 | 4 |
| 10 Y DLY PAL CVBS | 4 | 4 |
| 11 Y DLY PAL Y/C | 4 | 4 |
| 12 Y DLY SECAM CVBS | 4 | 4 |
| 13 Y DLY SECAM Y/C | 4 | 4 |
| 14 Y DLY PAL-M CVBS | 4 | 4 |
| 15 Y DLY PAL-M Y/C | 4 | 4 |
| 16 CHROMA CENT | 31 | 31 |
| 17 PH CENT NTSC COMB | 33 | 33 |
| 18 PH CENT NTSC CVBS | 31 | 31 |
| 19 PH CENT NTSC Y/C | 31 | 31 |
| 20 PH CENT NT443CVBS | 33 | 33 |
| 21 PH CENT NT443 Y/C | 35 | 35 |
| 22 C BPF NTSC COMB | 1 | 1 |
| 23 C BPF NTSC CVBS | 1 | 1 |
| 24 C BPF NTSC Y/C | 0 | 0 |
| 25 C BPF NT443 CVBS | 1 | 1 |
| 26 C BPF NT443 Y/C | 0 | 0 |
| 27 C BPF PAL CVBS | 1 | 1 |
| 28 C BPF PAL Y/C | 0 | 0 |
| 29 C BPF SECAM CVBS | 1 | 1 |
| 30 C BPF SECAM Y/C | 0 | 0 |
| 31 C BPF PAL-M CVBS | 1 | 1 |
| 32 C BPF PAL-M Y/C | 0 | 0 |
| 33 SUB BRT CVBS | 33 | 33 |
| 34 SUB BRT RGB | 33 | 33 |
| 35 SECAM ID START | 1 | 1 |
| 36 SECAM ID STOP | 2 | 2 |
| 37 *SECAM BELL F0 | 33 | 33 |
| 38 SECAM ID LEVEL | 3 | 3 |
| 39 C/O R ROUGH | 3 | 3 |
| 40 C/O G ROUGH | 3 | 3 |

| No. String | Default Data | |
|----------------------|----------------------------------|---------|
| | 14-inch | 20-inch |
| 41 C/O B ROUGH | 3 | 3 |
| 42 *C/O OFFSET CVBS | 28 | 49 |
| 43 *C/O R FINE CVBS | 26 | 21 |
| 44 *C/O G FINE CVBS | 31 | 31 |
| 45 *C/O B FINE CVBS | 31 | 29 |
| 46 *DRV ALL CVBS | No. 47, 48 and 49 are displayed. | |
| 47 *DRV R CVBS | 42 | 31 |
| 48 *DRV G CVBS | 36 | 23 |
| 49 *DRV B CVBS | 19 | 11 |
| 50 *C/O OFFSET SECAM | 29 | 50 |
| 51 *C/O R FINE SECAM | 11 | 11 |
| 52 *C/O G FINE SECAM | 31 | 31 |
| 53 *C/O B FINE SECAM | 24 | 23 |
| 54 *DRV ALL SECAM | No. 55, 56 and 57 are displayed. | |
| 55 *DRV R SECAM | 41 | 31 |
| 56 *DRV G SECAM | 36 | 23 |
| 57 *DRV B SECAM | 19 | 11 |
| 58 *C/O OFFSET RGB | 40 | 49 |
| 59 *C/O R FINE RGB | 30 | 29 |
| 60 *C/O G FINE RGB | 31 | 31 |
| 61 *C/O B FINE RGB | 33 | 32 |
| 62 *DRV ALL RGB | No. 63, 64 and 65 are displayed. | |
| 63 *DRV R RGB | 44 | 39 |
| 64 *DRV G RGB | 38 | 33 |
| 65 *DRV B RGB | 19 | 15 |
| 66 H OSC F0 | 7 | 7 |
| 67 H MASK | 1 | 1 |
| 68 H SYNC SEP | 0 | 0 |
| 69 V SYNC SEP | 0 | 0 |
| 70 V COUNTDOWN MODE | 1 | 1 |
| 71 *H CENT 60HZ CVBS | 11 | 14 |
| 72 *H CENT 60HZ RGB | 10 | 12 |
| 73 *H CENT 50HZ CVBS | 18 | 21 |
| 74 *H CENT 50HZ RGB | 13 | 15 |
| 75 *H CENT NTSC COMB | 12 | 14 |
| 76 H BLK RGB | 0 | 0 |
| 77 H BLK CVBS | 1 | 1 |
| 78 H BLK L 60 CVBS | 15 | 15 |
| 79 H BLK R 60 CVBS | 0 | 0 |
| 80 H BLK L 60 RGB | 15 | 15 |

| No. String | Default Data | |
|--------------------|--------------|---------|
| | 14-inch | 20-inch |
| 81 H BLK R 60 RGB | 0 | 0 |
| 82 H BLK L 50 CVBS | 15 | 15 |
| 83 H BLK R 50 CVBS | 0 | 0 |
| 84 H BLK L 50 RGB | 15 | 15 |
| 85 H BLK R 50 RGB | 0 | 0 |
| 86 *BOW | 7 | 7 |
| 87 *ANGLE | 7 | 7 |
| 88 *V CENTER | 32 | 31 |
| 89 *V SIZE | 22 | 23 |
| 90 *V SIZE 16 : 9 | 63 | 63 |
| 91 *VS-CORRECTION | 3 | 5 |
| 92 *V LINEARITY | 7 | 6 |
| 93 V LIN UPPER | 0 | 0 |
| 94 V LIN LOWER | 0 | 0 |
| 95 *H SIZE | 21 | 18 |
| 96 *H PIN PHASE | 5 | 6 |
| 97 *H PIN AMP | 27 | 23 |
| 98 *H CORNER PIN | 31 | 34 |
| 99 EHT | 8 | 8 |
| 100 SEC F0 TIME | 0 | 0 |
| 101 SEC F0 DELTA | 0 | 0 |
| 102 SEC F0 DELAY | 0 | 0 |

- The data of signals marked “*” can be changed freely.
- The data of signals without “*” marked is fixed.

3-2. PREPARATIONS (2)

- Set the video signal generator as follows, and input the composite video signal.

| Signal | | Signal Contents | Standard Level P-W |
|-----------------|-----------|-------------------|----------------------------|
| COMPOSITE VIDEO | NTSC 3.58 | 100 % WHITE | 0.714 V |
| | | 75 % WHITE | 0.536 V |
| | NTSC 4.43 | BURST (GREEN) | 286 mV p-p (632 mV p-p) |
| | | 100 % WHITE | 0.7 V |
| | PAL SECAM | 75 % WHITE | 0.525 V |
| | | PAL BURST (GREEN) | 300 mV p-p (664 mV p-p) |

- ☐ shows the name of the adjustment items of the service mode.
Example **H SIZE**
- If adjustments are performed in the service mode, save the service data before turning off the power. Turning off the power before saving the data will cause all adjusted data to be lost.
- Standard inspection state
Unless specified otherwise, set the video signal generator to the following conditions and perform the adjustments and inspections.

| | |
|--------------|-------|
| VOLUME | 50 |
| CONTRAST | 80 |
| BRIGHTNESS | STD |
| CHROMA | STD |
| PHASE | STD |
| ASPECT RATIO | 4 : 3 |

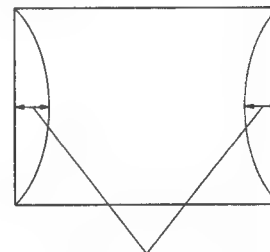
3-3. OUTPUTTING IMAGES

Setting the AC Input Voltage

- Input the video signals and audio signals into each terminal of the connector panel.
- Set the voltage of the variable AC power supply to AC100 \pm 3 V (distortion factor: 3 % or less).

3-4. RASTER CENTERING ADJUSTMENT

- Set the raster center adjustment mode.
Set the service mode according to "Setting the Service Mode", and press the **ENTER** key once to enter the raster center adjustment mode.
- Adjust S501 on the A board so that the raster comes to the horizontal direction center.



Adjust S501 so that the raster comes to the horizontal center.

3-5. LANDING ADJUSTMENT

1. Preparations

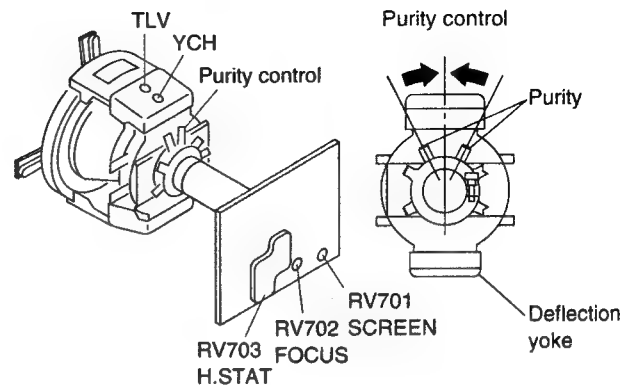
- (1) To reduce geomagnetism effects, face the CRT screen of this to the east or west.
- (2) Loosen the fixture of the deflection yoke, and push back the deflection yoke.
- (3) Turn on the power switch, and degauss with the degausser.
- (4) Adjust the tilt of the deflection yoke.

2. Adjustment

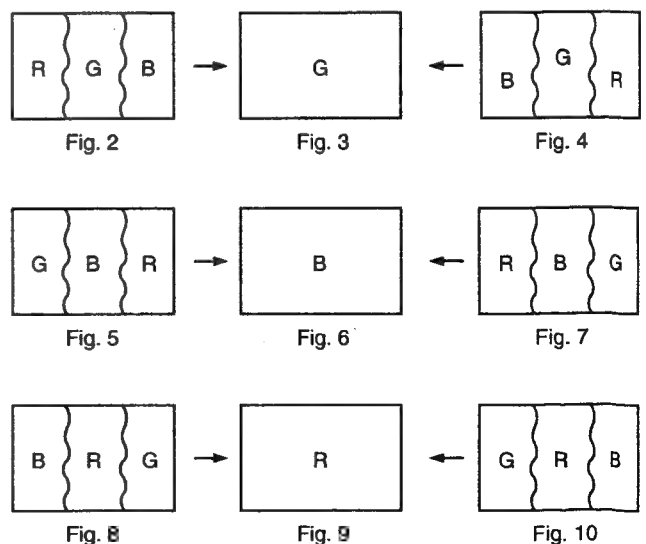
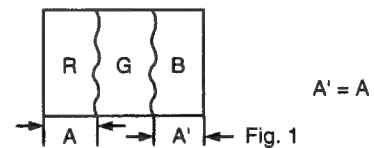
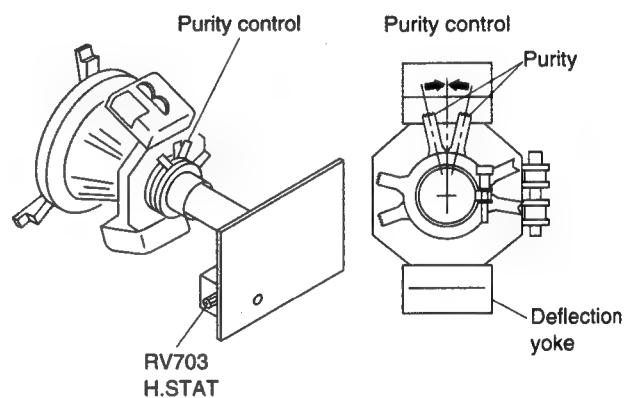
Note: The white balance, G2, and convergence need to be roughly adjusted beforehand.

- (1) Set CONTRAST to MAX.
Set BRIGHTNESS to a position which gives a clear view.
- (2) Set the video signal generator to G (green) only.
- (3) Adjust the purity knob so that G (green) comes to the center of the screen and the R and B widths become more or less the same. (Refer to Fig. 1.)
- (4) Switch the video signal generator to B (blue) only, R (red) only, and G (green) only, check that each color is at the center of the screen. (Refer to Fig. 3, 6, and 9)
- (5) Bring the deflection yoke forward gradually and adjust it so that the R and B at the both sides of the screen becomes green. (Refer to Fig. 2 and Fig. 3.)
- (6) Moving the deflection yoke forward too much will result in the pattern shown in Fig. 4. In such cases, push back the deflection yoke. (Refer to Fig. 4 and Fig. 3.)
- (7) Switch the video signal generator to B (blue) only, and check the pattern. (Refer to Fig. 6.)
- (8) Switch the video signal generator to R (red) only, and check the pattern. (Refer to Fig. 9.)
- (9) If the landing cannot be obtained in the corners, paste the magnet and perform adjustment.
- (10) Switch to the all white signal and check the uniformity.
- (11) After setting the position of the deflection yoke, secure it with fixture.

14-inch



20-inch



3-6. CONVERGENCE ADJUSTMENT

1. Input the dot pattern signal.

Set CONTRAST to the position at which it can be seen clearly.

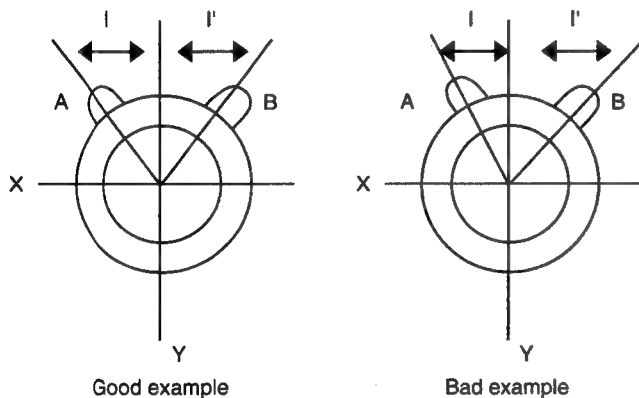
Set BRIGHTNESS to MIN.

2. Align the R, G, B dots in the horizontal direction at the center of the screen using RV703 (H-STAT).

Note: If H-CENT was changed after adjusting H-STAT, adjust H-STAT again. (The H-STAT can be changed by the H-CENT switch.)

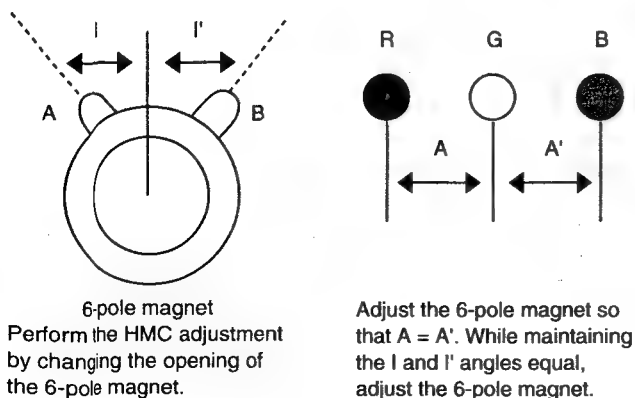
3. Align the top and bottom of R, G, B at the center of the screen using the V-STAT (vertical static convergence) magnets.

Note: After the V-STAT adjustment, always paint the magnets to lock.

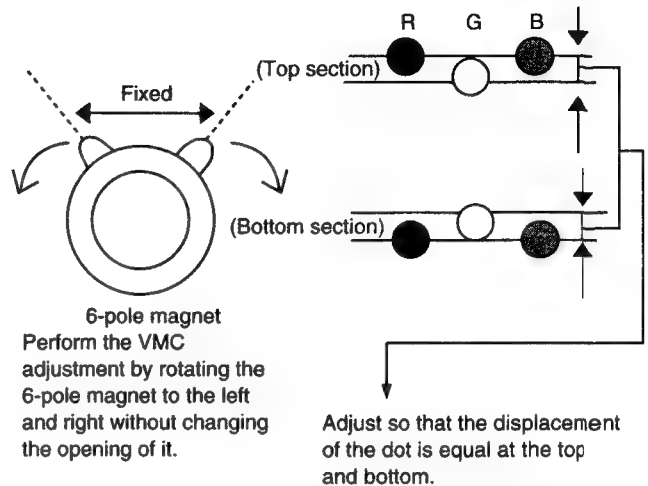


While maintaining the V-STAT magnet knobs A and B at the same angle ($I = I'$), adjust the top and bottom convergences. If A and B are asymmetrical ($I \neq I'$), it will have a negative effect; the focus may not be accurate, or the beam striking may occur.

4. For HMC, use a 6-pole magnet and adjust so that the R and B dots are symmetrical at the left and right sides in respect to the G dot.



5. For VMC, use a 6-pole magnet to adjust so that the R and B dots are symmetrical above and below the G dot.

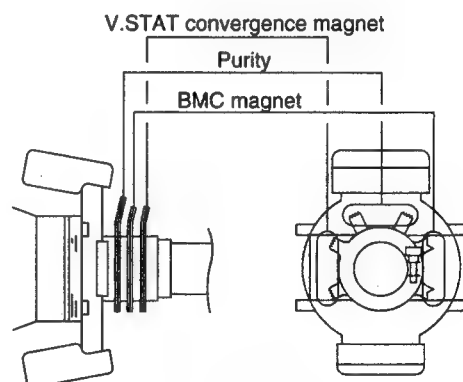


6. Repeat steps 2 to 5 until the convergence becomes correct.

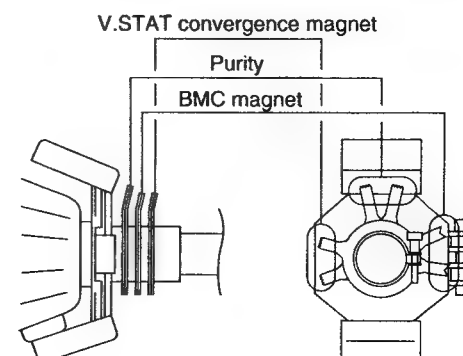
Note: Adjusting the convergence may affect the landing. Therefore be sure to check the landing again after completing this adjustment.

7. After adjusting, paint each magnet to lock them.

14-inch



20-inch



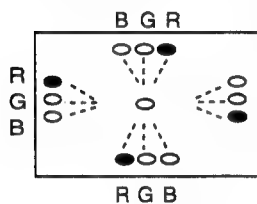
3-7. INCLINATION OF DEFLECTION YOKE ADJUSTMENT

If there is misconvergence at both sides of the X or Y axis of the CRT screen, incline the deflection yoke in the arrow direction to reduce the misconvergence for the entire CRT screen to satisfy the tolerance specified.

1. Adjustment

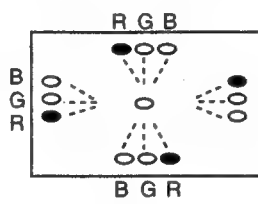
- If misconverged in the opposite direction

Move the deflection yoke downward.



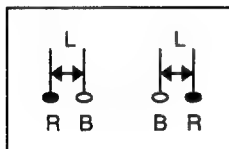
- If misconverged in the normal direction

Move the deflection yoke downward.



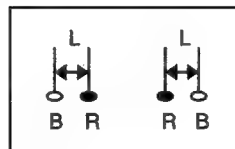
- If inclined to the left

Move the deflection yoke to the right as viewed from the CRT screen.



- If inclined to the right

Move the deflection yoke to the left as viewed from the CRT screen.

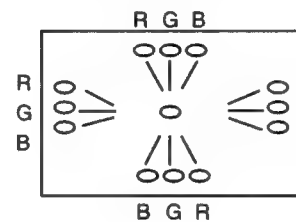


2. Insert the wedges into the DY and CRT funnel face to fix the deflection yoke. The number and position of the wedges are shown in the figure below.



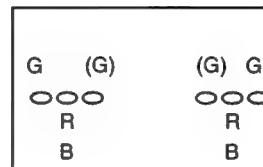
Position of the 14-inch wedge Position of the 20-inch wedge

3. The pattern below cannot be corrected by adjusting the inclination of the deflection yoke.



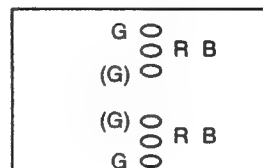
Gun rotation

Beam is twisted at both sides of the X and Y axes respectively.



HCR large (small)

The G raster vertical component is wider (or narrower) at both sides of the screen than those of the R and B rasters.



VCR large (small)

The G raster vertical component is wider (or narrower) at both sides of the screen than those of the R and B rasters.

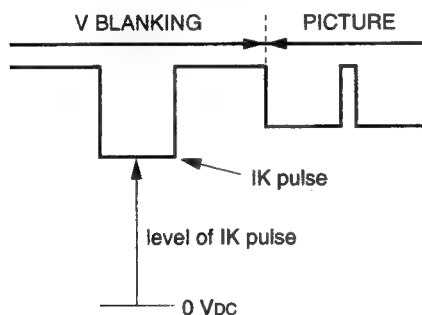
3-8. G2 ADJUSTMENT

1. Receive the 525 or 625 monoscope signal.
2. Set as follows in the service mode.

| No. | Item | Data | |
|-----|-----------------|---|--|
| | | PVM-14N5U/14N6U 14N5E/14N6E 14N5A/14N6A 14N5MDE SSM-14N5U 14N5A 14N5E | PVM-20N5U/20N6U 20N5E/20N6E 20N5A/20N6A SSM-20N5U 20N5E 20N5A |
| 33 | SUB BRT CVBS | 31 | |
| 40 | C/O G ROUGH | 3 | 7 |
| 42 | C/O OFFSET CVBS | 31 | |
| 44 | C/O G FINE CVBS | 31 | |

Data Setting by Service Mode

3. Connect the probe of the oscilloscope to the Q714 collector.
4. Adjust the Q714 collector IK pulse level to the following voltage using RV701 (G2).
20-inch (RV701/CB board): G cathode = 149 ± 1 V
14-inch (RV701/CA board): G cathode = 136 ± 1 V



3-9. WHITE BALANCE ADJUSTMENTS

3-9-1. VIDEO (Except SECAM) Adjustment

1. Select the LINE A input.
Set the monitor to the levels in the following table in the service mode.

| No. | Item | Data | |
|-----|-----------------|---|--|
| | | PVM-14N5U/14N6U 14N5E/14N6E 14N5A/14N6A 14N5MDE SSM-14N5U 14N5A 14N5E | PVM-20N5U/20N6U 20N5E/20N6E 20N5A/20N6A SSM-20N5U 20N5E 20N5A |
| 33 | SUB BRT CVBS | 31 | |
| 34 | SUB BRT RGB | 31 | |
| 39 | C/O R ROUGH | 3 | 7 |
| 40 | C/O G ROUGH | 3 | 7 |
| 41 | C/O B ROUGH | 3 | 7 |
| 45 | C/O B FINE CVBS | 31 | |
| 52 | C/O G FINE RGB | 31 | |

Data Setting by Service Mode

2. Input the all gray signal (Fig. 1) into LINE A.
3. Adjust the luminance to 3 ± 0.2 nit using 42 **C/O OFFSET CVBS**.
4. Adjust the white balance to the color temperature shown in Table 1 using 43 **C/O R FINE CVBS** and 45 **C/O B FINE CVBS**.
5. Repeat steps 3 and 4 so that the luminance and white balance become the specifications shown in Table 1.
6. Input the window signal (Fig. 2) into LINE A.
7. Adjust the luminance to 150 ± 1 nit using 46 **DRV ALL CVBS**.
8. Adjust the white balance to the color temperature shown in Table 1 using 47 **DRV R CVBS** and 49 **DRV B CVBS**.
9. Repeat steps 7 and 8 so that the luminance and white balance become the specifications shown in Table 1.
10. The cutoff varies by changing the drives. Therefore, repeat steps 3 to 9 until the luminance and color temperature of the drive and cutoff meet the specification.
11. Repeat steps 2 and 10 so that the luminance and white balance of the cutoff side (Fig. 1) and drive side (Fig. 2) become the specifications shown in Table 1.
12. Save the data.

11. Copy the data of the items adjusted in steps 1 to 10 to the service items for adjusting the SECAM white balance.

| | | | | |
|----|-----------------|---------------|----|------------------|
| 42 | C/O OFFSET CVBS | - Copied to → | 50 | C/O OFFSET SECAM |
| 43 | C/O R FINE CVBS | - Copied to → | 51 | C/O R FINE SECAM |
| 44 | C/O G FINE CVBS | - Copied to → | 52 | C/O G FINE SECAM |
| 45 | C/O B FINE CVBS | - Copied to → | 53 | C/O B FINE SECAM |
| 47 | DRV R CVBS | - Copied to → | 55 | DRV R SECAM |
| 48 | DRV G CVBS | - Copied to → | 56 | DRV G SECAM |
| 49 | DRV B CVBS | - Copied to → | 57 | DRV B SECAM |

12. Save the adjustment data.

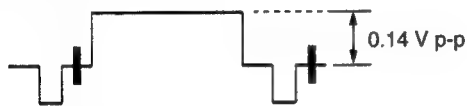


Fig. 1. NTSC All Gray Signal (With Burst)

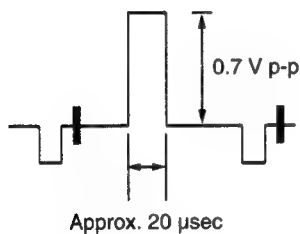


Fig. 2. NTSC Window Signal (With Burst)

| Color Temperature | Adjustment Error |
|----------------------------|------------------|
| D65 (x = 0.313, y = 0.329) | ±1 JND |

Table 1. Color Temperature

Note: If there is no NTSC Window signal (with burst), use Step signal.

3-9-2. Analog RGB Adjustment (PVM-14N6A, PVM-14N6E, PVM-14N6U, PVM-20N6E, PVM-20N6U)

1. Select RGB signal.
2. Input the all gray signal (Fig. 3) into the RGB input.
3. Adjust the luminance to 3 ± 0.2 nit using 58 **C/O OFFSET RGB**.
4. Adjust the white balance to the color temperature shown in Table 1 using 59 **C/O R FINE RGB** and 61 **C/O B FINE RGB**.
5. Repeat steps 3 and 4 so that the luminance and white balance become the specifications shown in Table 1.
6. Input the window signal (Fig. 4) into the RGB input.
7. Adjust the luminance to 150 ± 1 nit using 62 **DRV ALL RGB**.
8. Adjust the white balance to the color temperature shown in Table 1 using 63 **DRV R RGB** and 65 **DRV B RGB**.
9. Repeat steps 7 and 8 so that the luminance and white balance become the specifications shown in Table 1.
10. The cutoff varies by changing the drives. Therefore, repeat steps 3 to 9 until the luminance and color temperature of the drive and cutoff meet the specification.
11. Repeat steps 2 to 10 so that the luminance and white balance of the cut-off side (Fig. 3) and drive side (Fig. 4) become the specifications shown in Table 1.
12. Save the adjustment data.



Fig. 3. 525/60 All Gray Signal

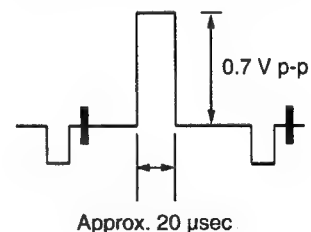


Fig. 4. 525/60 Window Signal

3-9-3. SECAM Cut-off Adjustment

1. Select LINE-A input.
2. Input the SECAM all gray signal (Fig. 5) into the LINE-A.
3. Adjust the luminance to 3 ± 0.2 nit using 50 **C/O OFFSET SECAM**.
4. Adjust the white balance to the color temperature shown in Table 1 using 51 **C/O R FINE SECAM** and 53 **C/O B FINE SECAM**.
5. Repeat steps 3 and 4 so that the luminance and white balance become the specifications shown in Table 1.
6. Save the adjustment data.

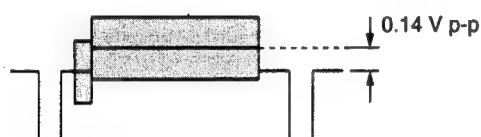


Fig.5. SECAM all gray signal

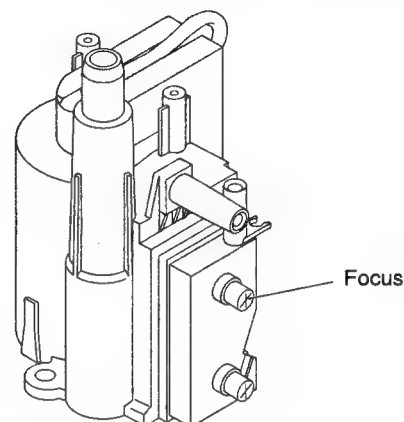
3-9-4. Sub-Brightness Adjustment

After completing the adjustments in 3-9-1, 3-9-2, and 3-9-3, set the sub-brightness data as follows.

| No. | Item | Data |
|-----|--------------|------|
| 33 | SUB BRT CVBS | 33 |
| 34 | SUB BRT RGB | 33 |


3-10. FOCUS ADJUSTMENT

Adjust RV702 of the CA board for the 14-inch model.
Adjust RV at the top of the FBT for the 20-inch model.



1. Input the 525 monoscope signal.
2. Adjust the focus so that the focus of the "30" at the center of the screen becomes optimum.
3. Switch the signal to all white, and check the uniformity.

SAFETY RELATED ADJUSTMENTS

Note: The “4-1. B+ Voltage Check” and “4-2. Protection Circuit (Hold-down circuit) Check” should always be performed when replacing the following components marked  on the schematic diagram.

4-1. B+ VOLTAGE CHECK

Note: Be sure to use the NF power supply. If not, use an ordinary power supply of its distortion factor is 3 % or less.

A board

Marked products (■) C102, C331, C332, C333,
C334, C335, C341, C390,
C507, D102, D103, C1454,
IC001, IC301, IC552, L505,
Q102, R107, R108, R110,
R324, R325, R326, R327,
R328, R329, R330, T501

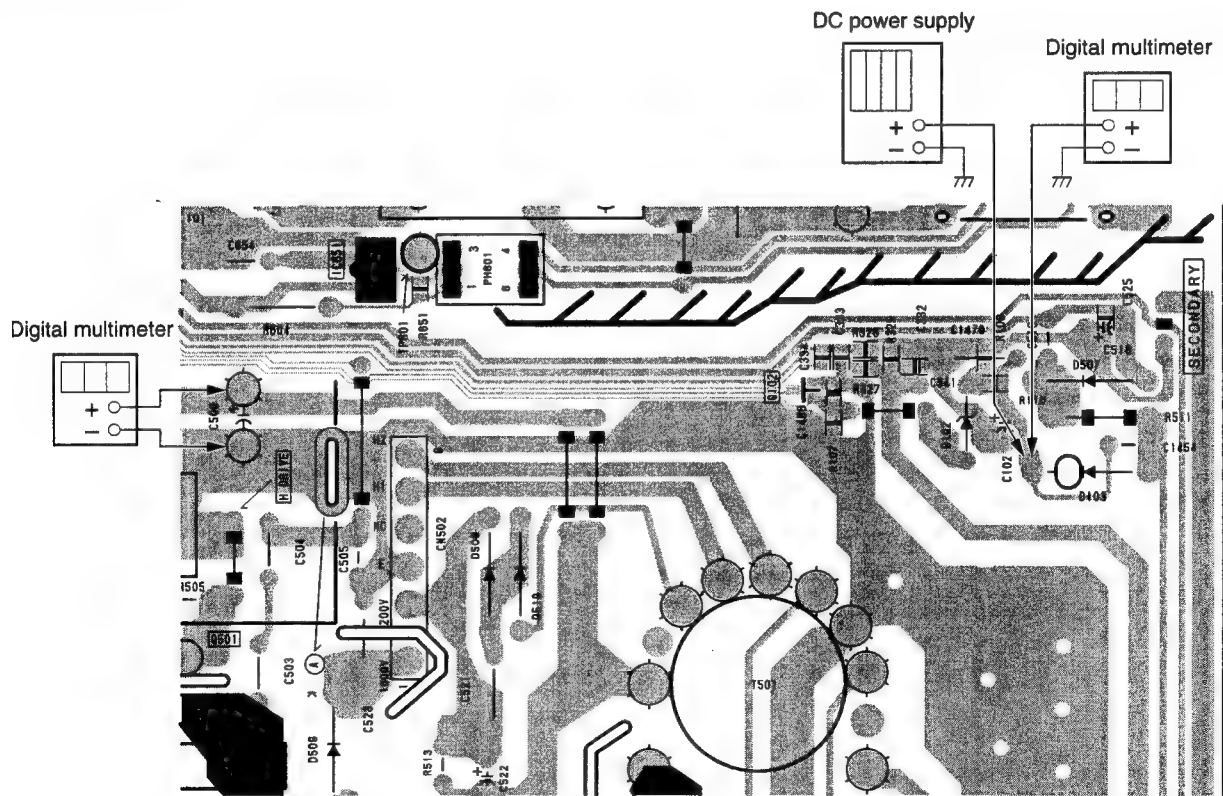
Input voltage: $130 \pm_0^3 \text{ Vac}$

Input signal: **Black**

Controls: **BRIGHTNESS** \Rightarrow Minimum
 CONTRAST \Rightarrow Minimum

Specification: Confirm that the voltage at C500 on the A board is 116.0 Vdc or less.

A BOARD (B SIDE)



4-2. PROTECTION CIRCUIT (HOLD-DOWN CIRCUIT) CHECK

Note: Be sure to use the NF power supply. If not, use an ordinary power supply of its distortion factor is 3% or less.

1. Protection Circuit Normal Operation Check

Input voltage: 120 ± 3 Vac

Input signal: Black

Controls: BRIGHTNESS \Rightarrow Minimum

CONTRAST \Rightarrow Minimum

Specification: Confirm that the voltage at Cathode of D103 on the A board and ground is greater than 99.0 Vdc.

2. Protection Circuit Operation Check (1)

Input voltage: 130 Vac

Input signal: Black

Controls: 14-inch: IABL = 40 ± 20 μ A

20-inch: IABL = 120 ± 20 μ A

Specification: Apply following voltage to Cathode of D103 on the A board from the external DC power supply and make sure that the hold-down circuit doesn't work.

14-inch: $119.6^{+0}_{-0.4}$ Vac

20-inch: $145.2^{+0}_{-0.4}$ Vac

3. Protection Circuit Operation Check (2)

Input voltage: 130 Vac

Input signal: Black

Controls: 14-inch: IABL = 40 ± 20 μ A

20-inch: IABL = 120 ± 20 μ A

Specification: Apply following voltage to Cathode of D103 on the A board from the external DC power supply and make sure that the hold-down circuit works.

14-inch: $128.4^{+0}_{-0.4}$ Vac

20-inch: $156.6^{+0}_{-0.4}$ Vac

SECTION 5 CIRCUIT ADJUSTMENTS

5-1. PREPARATIONS

Input signals within $\pm 2\%$ of the following specifications.

| Signal | Signal Contents | Standard Level P-W |
|-------------------------------------|-------------------|-------------------------|
| COMPOSITE VIDEO (75 % COLOR BAR) | NTSC 3.58 | 100 % WHITE 0.714 V |
| | NTSC 4.43 | 75 % WHITE 0.536 V |
| | BURST (GREEN) | 286 mV p-p (632 mV p-p) |
| | PAL SECAM | 100 % WHITE 0.7 V |
| | 75 % WHITE | 0.525 V |
| | PAL BURST (GREEN) | 300 mV p-p (664 mV p-p) |

5-2. DEFLECTION SYSTEM ADJUSTMENT

5-2-1. Vertical Deflection Section Adjustment

Note: The 16 : 9 mode is available only for the PVM-14N6U and PVM-20N6U.

| | 525 Monoscope | 625 Special CB |
|--------|------------------------|-----------------------|
| 4 : 3 | 11.75 ± 0.2 frames | 12.8 ± 0.3 frames |
| 16 : 9 | 14-inch 157 mm | 157 mm |
| | 20-inch 221 mm | 221 mm |

Vertical Size Specifications

1. Input the 525 Monoscope signal.
2. Set CONTRAST to 80 %.
Set BRIGHTNESS to standard (STD).
3. Set the service mode.
4. Adjust the vertical size to the specified value using 89 **V SIZE**.
Optimize the vertical linearity using 92 **V LINEARITY** and 91 **VS-CORRECTION**.
Adjust the vertical centering using 88 **V CENTER**. (Refer to Note 1.)
5. Check that the vertical size is within the specification.
6. Set the 16 : 9 mode.
7. Check that the vertical size is within the 16 : 9 mode specification. (Refer to Note 2.)
8. Return to the 4 : 3 mode.
9. Input the 625 special color bar signal.
10. Check that the vertical size is within the specification.
11. Set the 16 : 9 mode.
12. Check that the vertical size is within the 16 : 9 mode specification.

Note 1: Set 89 **V SIZE** within the "10 to 63" range.
Always set 93 **V LIN UPPER** and 94 **V LIN LOWER** to "0."

Note 2: Measure the vertical size of the 16 : 9 mode with no flag signal in the vicinity of the image.

5-2-2. Horizontal Deflection Section Adjustment

Note 1: Make sure that the "3-4. Raster Centering Adjustment" has been completed before performing this adjustment.

Note 2: The 16 : 9 mode is available only for the PVM-14N6U and PVM-20N6U.

1. Input the 525 Monoscope signal.
2. Set CONTRAST to 80 %.
Set BRIGHTNESS to standard (STD).
3. Set the service mode.
4. Adjust roughly the horizontal size to 16 frames using 95 **H SIZE**.
5. Adjust the horizontal deflection section using 97 **H PIN AMP**, 96 **H PIN PHASE**, 98 **H CORNER PIN**, 86 **BOW**, 87 **ANGLE**, and 95 **H SIZE**.
While correcting the distortion, adjust so that the horizontal and vertical of the screen become perpendicular.
6. Set the 16 : 9 mode.
7. Check that the screen distortion is normal.
8. Input the 625 special color bar signal.
9. Check that the screen distortion is normal for both 4 : 3 and 16 : 9.

| | 525 Monoscope | 625 Special CB |
|--------|------------------------|-----------------------|
| 4 : 3 | 15.75 ± 0.2 frames | 16.8 ± 0.3 frames |
| 16 : 9 | 15.75 ± 0.2 frames | 16.8 ± 0.3 frames |

Horizontal Size Specification

BOW (No. 86)



ANGLE (No. 87)



H PIN PHASE (No. 96)



H PIN AMP (No. 97)



H COR PIN (No. 98)



5-2-3. Horizontal Centering Adjustment

The register for adjusting the horizontal centering requires 5 adjustments depending on the combination of the input and signal.

| No. | Item | Input | Adjustment Signal |
|-----|-------------------|--------|-----------------------|
| 71 | H CENT 60 Hz CVBS | LINE-A | 525 Monoscope |
| 72 | H CENT 60 Hz RGB | RGB | 525 Monoscope |
| 73 | H CENT 50 Hz CVBS | LINE-A | 625 special color bar |
| 74 | H CENT 50 Hz RGB | RGB | 625 special color bar |
| 75 | H CENT NTSC COMB | LINE-A | 525 Monoscope |

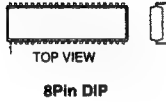
1. Select LINE-A.
2. Input the 525 Monoscope signal into the LINE-A input.
3. Select NTSC at the COLOR SELECT menu.
4. Adjust the horizontal centering using 71
H CENT 60HZ CVBS.
5. Select AUTO at the COLOR SELECT menu.
6. Adjust the horizontal centering using 75
H CENT NTSC COMB.
7. Input the 625 special color bar signal into the LINE-A input.
8. Adjust the horizontal centering using 73
H CENT 50HZ CVBS.
9. Save the data.

Note: The following items 10 to 16 are for PVM-14N6A, PVM-14N6E, PVM-20N6A and PVM-20N6E.

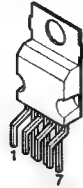
10. Select RGB.
11. Select SYNC ON G at the RGB SYNC menu.
12. Input the 525 Monoscope signal into the RGB input.
13. Adjust the horizontal centering using 72
H CENT 60HZ RGB.
14. Input the 625 special color bar signal into the RGB input.
15. Adjust the horizontal centering using 74
H CENT 50HZ RGB.
16. Save the data.

SECTION 6 SEMICONDUCTORS

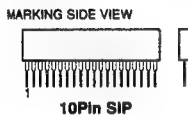
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TDA7052A
UPC4558C



STV9379



BA7604N



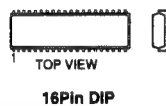
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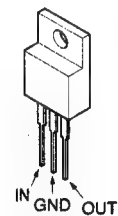
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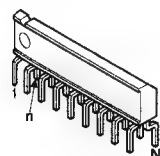
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MC7809CT
NJM7809FA
SE115N
TA7805S



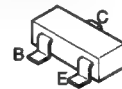
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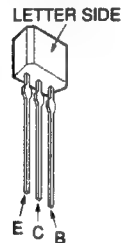
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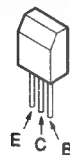
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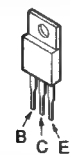
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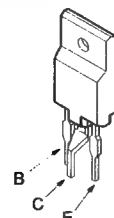
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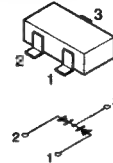
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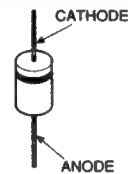
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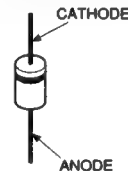
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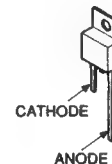
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EL1Z-V1
GP08D
GP08DPKG23
RGP02-17EL-6433
RGP02-17PKG23
RGP10GPKG23



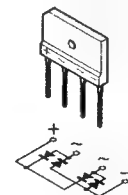
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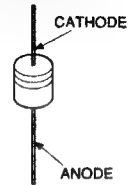
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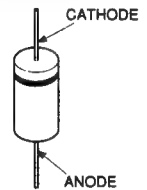
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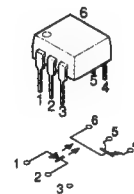
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MTZJ-6.2C
MTZJ-7.5B
RD5.1ESB2



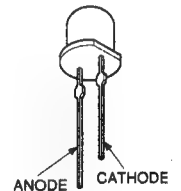
MTZJ-36B
RU4AM-T3



RC111YS



SLR-56MC3F



SECTION 7

EXPLODED VIEWS

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.

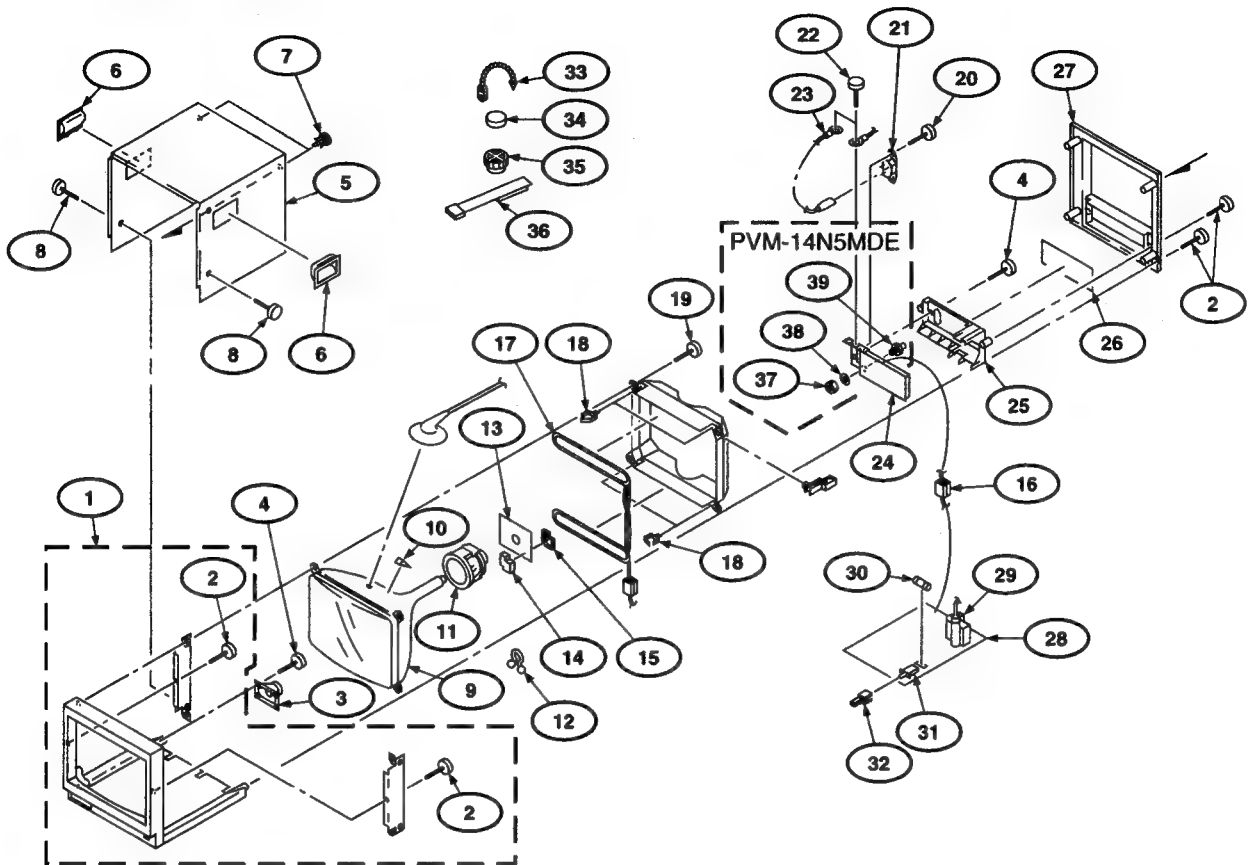
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

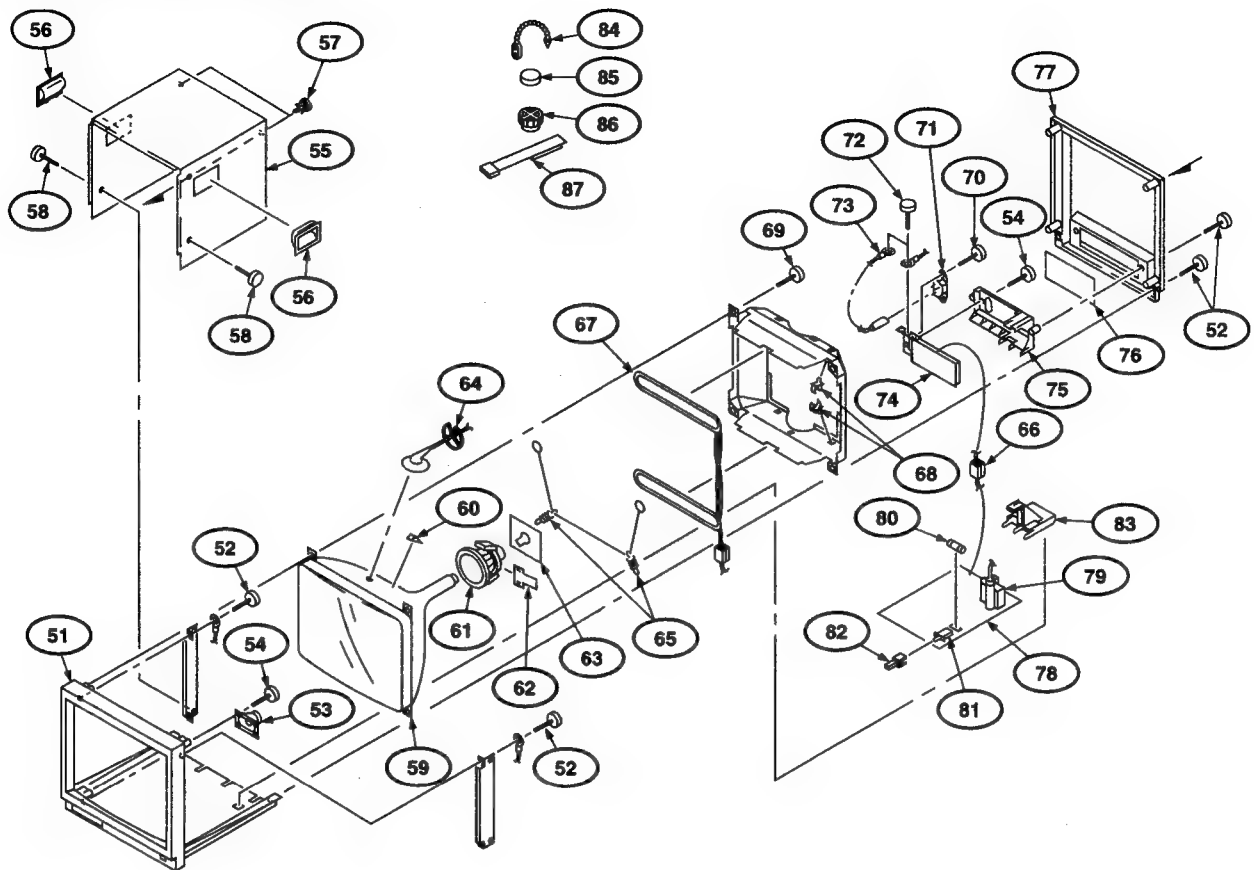
CHASSIS

7-1. CHASSIS (14-INCH)



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--|--------|---------|----------------|--|--------|
| 1 | X-4033-973-1 | BEZNET ASSY (PVM-14N6A/14N6E/14N6U) | 2 | 24 | * A-1270-399-A | Q BOARD, COMPLETE (PVM-14N6A/14N6E/14N6U) | |
| | X-4033-974-1 | BEZNET ASSY (PVM-14N5A/14N5E/14N5U) | 2 | | * A-1270-401-A | Q BOARD, COMPLETE (SSM-14N5A/14N5E/14N5U) | |
| | X-4033-975-1 | BEZNET ASSY (SSM-14N5A/14N5E/14N5U) | 2 | 25 | 4-050-074-03 | PANEL, CONNECTOR | |
| | X-4033-976-2 | BEZNET ASSY (PVM-14N5MDE) | 2 | 26 | 4-050-082-02 | LABEL, CONNECTOR (PVM-14N6A/14N6E/14N6U) | |
| 2 | 4-039-358-01 | SCREW (4X16), (+) BV TAPPING | | | 4-050-082-12 | LABEL, CONNECTOR (PVM-14N5A/14N5E/14N5U) | |
| 3 | 1-505-188-11 | SPEAKER (4X7CM) | | | 4-050-082-22 | LABEL, CONNECTOR (SSM-14N5A/14N5E/14N5U) | |
| 4 | 4-039-356-01 | SCREW (3X12), (+) BV TAPPING | | | 4-050-082-32 | LABEL, CONNECTOR (PVM-14N5MDE) | |
| 5 | 4-050-073-11 | CABINET (except PVM-14N5MDE) | | 27 | 4-050-081-01 | PANEL, REAR | |
| 6 | A-1501-211-B | CABINET (PVM-14N5MDE) | | 28 | * A-1298-614-A | A BOARD, COMPLETE (PVM-14N5A/14N5E/14N5U) | |
| 7 | 4-391-825-01 | RIVET, NYLON | | | * A-1298-615-A | A BOARD, COMPLETE (PVM-14N6A/14N6E/14N6U) | |
| 8 | 4-847-802-11 | SCREW (M4X8), CLAW | | | * A-1298-623-A | A BOARD, COMPLETE (SSM-14N5A/14N5E/14N5U) | |
| 9 | Δ 8-738-342-05 | PICTURE TUBE (M34KBE10X) | | | * A-1298-624-A | A BOARD, COMPLETE (PVM-14N5MDE) | |
| 10 | 3-704-495-01 | SPACER, DY | | 29 | Δ 8-598-830-00 | TRANSFORMER ASSY, FLYBACK (NX-4301/J2A4) | |
| 11 | Δ 8-451-472-11 | DEFLECTION YOKE (Y14MGAT) | | 30 | Δ 1-576-231-11 | FUSE (H.B.C.) (4A/250V) | |
| 12 | 4-847-334-02 | PURSE LOCK (DIA.15) | | 31 | Δ 1-571-433-31 | SWITCH, PUSH (AC POWER) | |
| 13 | * A-1331-827-A | CA BOARD, COMPLETE | | 32 | 4-050-085-01 | BUTTON, POWER SWITCH | |
| 14 | * 4-374-912-01 | COVER (MAIN), CV VOL | | 33 | 4-308-870-00 | CLIP, LEAD WIRE | |
| 15 | * 4-374-913-01 | COVER (REAR LID), CV VOL | | 34 | 1-452-032-00 | MAGNET, DISK ; 10mmø | |
| 16 | 1-543-653-11 | CORE ASSY, BEAD(DIVISION TYPE) | | 35 | 1-452-094-00 | MAGNET, ROTATABLE DISK ; 15mmø | |
| 17 | Δ 1-426-442-21 | COIL, DEMAGNETIZATION | | 36 | X-4309-608-0 | PERMALLOY ASSY, CONVERGENCE | |
| 18 | * 4-316-015-00 | HOLDER, WIRE | | 37 | * 3-175-741-01 | NUT (PVM-14N5MDE) | |
| 19 | 4-203-648-01 | SCREW (5), SELF TAPPING | | 38 | * 3-175-742-01 | WASHER (PVM-14N5MDE) | |
| 20 | 4-050-078-01 | SCREW, +B M3X10 | | 39 | * 3-175-740-01 | TERMINAL (PVM-14N5MDE) | |
| 21 | Δ 1-251-263-11 | INLET, AC | | | | | |
| 22 | 4-050-077-01 | SCREW +PSW M4X8 | | | | | |
| 23 | * 1-900-214-07 | WIRE ASSY, SAFETY EARTH | | | | | |
| 24 | * A-1270-398-A | Q BOARD, COMPLETE (PVM-14N5A/14N5E/14N5MDE/14N5U) | | | | | |

7-2. CHASSIS (20-INCH)



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--|--------|---------|----------------|--|--------|
| 51 | X-4033-977-1 | BEZNET ASSY (PVM-20N6A/20N6E/20N6U) | | 74 | * A-1270-398-A | Q BOARD, COMPLETE (PVM-20N5A/20N5E/20N5U) | |
| | X-4033-978-1 | BEZNET ASSY (PVM-20N5A/20N5E/20N5U) | | | * A-1270-399-A | Q BOARD, COMPLETE (PVM-20N6A/20N6E/20N6U) | |
| | X-4033-979-1 | BEZNET ASSY (SSM-20N5A/20N5E/20N5U) | | | * A-1270-401-A | Q BOARD, COMPLETE (SSM-20N5A/20N5E/20N5U) | |
| 52 | 4-039-358-01 | SCREW (4X16), (+) BV TAPPING | | 75 | 4-050-074-03 | PANEL, CONNECTOR | |
| 53 | 1-505-188-11 | SPEAKER (4X7CM) | | 76 | 4-050-082-02 | LABEL, CONNECTOR (PVM-20N6A/20N6E/20N6U) | |
| 54 | 4-039-356-01 | SCREW (3X12), (+) BV TAPPING | | | | | |
| 55 | 4-050-060-33 | CABINET | | 76 | 4-050-082-12 | LABEL, CONNECTOR (PVM-20N5A/20N5E/20N5U) | |
| 56 | 4-389-320-21 | HANDLE | | | | | |
| 57 | 4-391-825-01 | RIVET, NYLON | | | 4-050-082-22 | LABEL, CONNECTOR (SSM-20N5A/20N5E/20N5U) | |
| 58 | 4-847-802-11 | SCREW (M4X8), CLAW | | 77 | 4-050-063-01 | PANEL, REAR | |
| 59 | △ 8-736-135-05 | PICTURE TUBE (M49KGH10X) | | 78 | * A-1298-619-A | A BOARD, COMPLETE (PVM-20N5A/20N5E/20N5U) | |
| 60 | 3-704-495-01 | SPACER, DY | | | | | |
| 61 | △ 1-451-349-11 | DEFLECTION YOKE (Y20FZA) | | | * A-1298-621-A | A BOARD, COMPLETE (PVM-20N6A/20N6E/20N6U) | |
| 62 | 4-030-120-01 | PLATE, CORRECTION, TLV | | | | | |
| 63 | * A-1331-828-A | CB BOARD, COMPLETE | | 78 | * A-1298-622-A | A BOARD, COMPLETE (SSM-20N5A/20N5E/20N5U) | |
| 64 | 3-704-372-01 | HOLDER, HV CABLE | | | | | |
| 65 | 4-369-318-31 | SPRING, TENSION | | 79 | △ 1-453-277-11 | TRANSFORMER ASSY, FLYBACK (NX-4008/U2A4) | |
| 66 | 1-543-653-11 | CORE ASSY, BEAD (DIVISION TYPE) | | | | | |
| 67 | △ 1-411-750-11 | COIL, DEMAGNETIC | | 80 | △ 1-576-231-11 | FUSE (H.B.C.) (4A/250V) | |
| 68 | 4-041-021-02 | HOLDER, DEGAUSE COIL | | 81 | △ 1-571-433-31 | SWITCH, PUSH (AC POWER) | |
| | | | | 82 | 4-050-085-01 | BUTTON, POWER SWITCH | |
| 69 | 4-203-648-01 | SCREW (5), SELF TAPPING | | 83 | 4-050-066-01 | HOLDER, PWB | |
| 70 | 4-050-078-01 | SCREW, +B M3X10 | | 84 | 4-308-870-00 | CLIP, LEAD WIRE | |
| 71 | △ 1-251-263-11 | INLET, AC | | 85 | 1-452-032-00 | MAGNET, DISK ; 10mmø | |
| 72 | 4-050-077-01 | SCREW +PSW M4X8 | | 86 | 1-452-094-00 | MAGNET, ROTATABLE DISK ; 15mmø | |
| 73 | * 1-900-214-07 | WIRE ASSY, SEFETY EARTH | | 87 | X-4309-608-0 | PERMALLOY ASSY, CONVERGENCE | |

SECTION 8

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS

- All resistors are in ohms
- F: nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS

PF: $\mu\mu\text{F}$

- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--|--------|-------------|----------------|--|--------|
| | * A-1270-398-A | Q BOARD, COMPLETE ***** (PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U) | | C1350 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V (except SSM-14N5A/E/U, 20N5A/E/U) | |
| | * A-1270-399-A | Q BOARD, COMPLETE ***** (PVM-14N6A/E/U, 20N6A/E/U) | | C1350 | 1-216-295-91 | SHORT 0 (SSM-14N5A/E/U, 20N5A/E/U) | |
| | * A-1270-401-A | Q BOARD, COMPLETE ***** (SSM-14N5A/E/U, 20N5A/E/U) | | C1351 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V (except SSM-14N5A/E/U, 20N5A/E/U) | |
| | | | | C1351 | 1-216-295-91 | SHORT 0 (SSM-14N5A/E/U, 20N5A/E/U) | |
| | 1-694-045-11 | TERMINAL BOARD ASSY, I/O (J1301, 1302, 1305, 1306, 1311-1317, 1320, 1321) (PVM-14N6A/E/U, 20N6A/E/U) | | C1352 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V (except SSM-14N5A/E/U, 20N5A/E/U) | |
| | 1-694-046-11 | TERMINAL BOARD ASSY, I/O (J1301, 1302, 1305, 1306, 1317, 1320) (PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U) | | C1352 | 1-216-295-91 | SHORT 0 (SSM-14N5A/E/U, 20N5A/E/U) | |
| | 1-694-047-11 | TERMINAL BOARD ASSY, I/O (J1301, 1302, 1305, 1306) (SSM-14N5A/E/U, 20N5A/E/U) | | C1353 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V (except SSM-14N5A/E/U, 20N5A/E/U) | |
| | 7-627-557-48 | SCREW (2.6X10), +P TAPPING | | C1353 | 1-216-295-91 | SHORT 0 (SSM-14N5A/E/U, 20N5A/E/U) | |
| | <CAPACITOR> | | | C1354 | 1-163-021-91 | CERAMIC CHIP 0.01μF 10% 50V | |
| C1303 | 1-164-232-11 | CERAMIC CHIP 0.01μF 10% 50V | | C1355 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | |
| C1304 | 1-113-340-11 | ELECT 47μF 20% 25V | | C1356 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | |
| C1305 | 1-164-005-11 | CERAMIC CHIP 0.47μF 25V | | C1357 | 1-163-021-91 | CERAMIC CHIP 0.01μF 10% 50V | |
| C1308 | 1-126-795-11 | ELECT 10μF 20% 25V | | C1358 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | |
| C1317 | 1-126-795-11 | ELECT 10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U) | | C1359 | 1-113-340-11 | ELECT 47μF 20% 25V | |
| C1319 | 1-126-795-11 | ELECT 10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U) | | C1360 | 1-113-340-11 | ELECT 47μF 20% 25V | |
| C1320 | 1-126-795-11 | ELECT 10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U) | | C1361 | 1-113-340-11 | ELECT 47μF 20% 25V | |
| C1322 | 1-126-795-11 | ELECT 10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U) | | C1362 | 1-113-340-11 | ELECT 47μF 20% 25V | |
| C1325 | 1-126-795-11 | ELECT 10μF 20% 25V (PVM-14N6A/E/U, 20N6A/E/U) | | <CONNECTOR> | | | |
| C1326 | 1-126-795-11 | ELECT 10μF 20% 25V | | CN1301 | * 1-564-521-11 | PLUG, CONNECTOR 6P | |
| C1327 | 1-126-795-11 | ELECT 10μF 20% 25V | | CN1302 | * 1-564-522-11 | PLUG, CONNECTOR 7P (except SSM-14N5A/E/U, 20N5A/E/U) | |
| C1328 | 1-126-795-11 | ELECT 10μF 20% 25V (except SSM-14N5A/E/U, 20N5A/E/U) | | CN1303 | * 1-564-522-11 | PLUG, CONNECTOR 7P (except PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U) | |
| C1329 | 1-126-795-11 | ELECT 10μF 20% 25V (except SSM-14N5A/E/U, 20N5A/E/U) | | <DIODE> | | | |
| C1330 | 1-164-232-11 | CERAMIC CHIP 0.01μF 10% 50V (except SSM-14N5A/E/U, 20N5A/E/U) | | D1300 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1331 | 1-126-795-11 | ELECT 10μF 20% 25V (except SSM-14N5A/E/U, 20N5A/E/U) | | D1301 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1332 | 1-163-121-00 | CERAMIC CHIP 150PF 5% 50V | | D1302 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1333 | 1-163-121-00 | CERAMIC CHIP 150PF 5% 50V (except SSM-14N5A/E/U, 20N5A/E/U) | | D1303 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1334 | 1-163-121-00 | CERAMIC CHIP 150PF 5% 50V (PVM-14N6A/E/U, 20N6A/E/U) | | D1304 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1335 | 1-164-232-11 | CERAMIC CHIP 0.01μF 10% 50V | | D1305 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1341 | 1-163-021-91 | CERAMIC CHIP 0.01μF 10% 50V | | D1308 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1342 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | | D1309 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1343 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | | D1314 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| C1344 | 1-163-021-91 | CERAMIC CHIP 0.01μF 10% 50V | | D1315 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| C1345 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | | D1316 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| C1346 | 1-163-021-91 | CERAMIC CHIP 0.01μF 10% 50V | | D1317 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| C1347 | 1-164-005-11 | CERAMIC CHIP 0.47μF 25V | | D1318 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| C1348 | 1-163-021-91 | CERAMIC CHIP 0.01μF 10% 50V | | D1319 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| C1349 | 1-163-235-11 | CERAMIC CHIP 22PF 5% 50V | | D1320 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| | | | | D1321 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | |
| | | | | D1322 | 8-719-923-74 | DIODE MTZJ-T-77-11A (PVM-14N6A/E/U, 20N6A/E/U) | |

| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|--------------|--------------|---|--------|---------|--------------|---|--------|
| D1324 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1317 | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W | |
| D1325 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1318 | 1-216-119-00 | RES,CHIP 820K 5% 1/10W | |
| D1326 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1319 | 1-216-107-00 | RES,CHIP 270K 5% 1/10W | |
| | | | | R1320 | 1-216-097-00 | RES,CHIP 100K 5% 1/10W | |
| D1327 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1321 | 1-216-095-00 | RES,CHIP 82K 5% 1/10W | |
| D1328 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1331 | 1-216-049-91 | RES,CHIP 1K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| D1329 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1332 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| D1330 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1333 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| D1331 | 8-719-991-33 | DIODE 1SS133T-77 (except SSM-14N5A/E/U, 20N5A/E/U) | | R1335 | 1-216-049-91 | RES,CHIP 1K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| D1332 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | | R1336 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| D1333 | 8-719-991-33 | DIODE 1SS133T-77 (PVM-14N6A/E/U, 20N6A/E/U) | | R1337 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| <IC> | | | | R1338 | 1-216-009-00 | RES,CHIP 22 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| IC1301 | 8-759-984-96 | IC BA7604N | | R1339 | 1-214-702-00 | METAL 75 1% 1/4W (PVM-14N6A/E/U, 20N6A/E/U) | |
| <JACK> | | | | R1340 | 1-216-049-91 | RES,CHIP 1K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| J1303 | 1-565-167-12 | TERMINAL, (S) (WITH SW) 4P | | R1341 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| J1304 | 1-569-578-11 | TERMINAL, S (WITH SW) | | R1342 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| J1319 | 1-565-167-12 | TERMINAL, (S) (WITH SW) 4P (except SSM-14N5A/E/U, 20N5A/E/U) | | R1343 | 1-216-009-00 | RES,CHIP 22 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| <TRANSISTOR> | | | | R1344 | 1-214-702-00 | METAL 75 1% 1/4W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1302 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE | | R1345 | 1-216-009-00 | RES,CHIP 22 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1305 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | | R1346 | 1-214-702-00 | METAL 75 1% 1/4W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1308 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U) | | R1347 | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1309 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U) | | R1348 | 1-216-119-00 | RES,CHIP 820K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1310 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U) | | R1349 | 1-216-107-00 | RES,CHIP 270K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1311 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE (PVM-14N6A/E/U, 20N6A/E/U) | | R1350 | 1-216-097-00 | RES,CHIP 100K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1312 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE (PVM-14N6A/E/U, 20N6A/E/U) | | R1351 | 1-216-095-00 | RES,CHIP 82K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1313 | 8-729-119-78 | TRANSISTOR 2SC2785-HFE (except SSM-14N5A/E/U, 20N5A/E/U) | | R1352 | 1-216-059-00 | RES,CHIP 2.7K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| Q1314 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE (except SSM-14N5A/E/U, 20N5A/E/U) | | R1355 | 1-216-049-91 | RES,CHIP 1K 5% 1/10W (PVM-14N6A/E/U, 20N6A/E/U) | |
| <RESISTOR> | | | | R1356 | 1-214-702-00 | METAL 75 1% 1/4W (PVM-14N6A/E/U, 20N6A/E/U) | |
| R1303 | 1-216-009-00 | RES,CHIP 22 5% 1/10W | | R1358 | 1-247-791-91 | CARBON 22 5% 1/4W | |
| R1304 | 1-214-702-00 | METAL 75 1% 1/4W | | R1360 | 1-214-702-00 | METAL 75 1% 1/4W (except SSM-14N5A/E/U, 20N5A/E/U) | |
| R1305 | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W | | R1361 | 1-247-791-91 | CARBON 22 5% 1/4W (except SSM-14N5A/E/U, 20N5A/E/U) | |
| R1307 | 1-214-702-00 | METAL 75 1% 1/4W | | R1362 | 1-216-009-00 | RES,CHIP 22 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U) | |
| R1308 | 1-216-059-00 | RES,CHIP 2.7K 5% 1/10W | | R1363 | 1-214-702-00 | METAL 75 1% 1/4W (except SSM-14N5A/E/U, 20N5A/E/U) | |
| R1309 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | | R1364 | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W (except SSM-14N5A/E/U, 20N5A/E/U) | |
| R1310 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | | | | | |
| R1311 | 1-214-702-00 | METAL 75 1% 1/4W | | | | | |
| R1312 | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W | | | | | |



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|--------------|--|---------------|---------|--------------|---|----------|
| R1365 | 1-214-702-00 | METAL (except SSM-14N5A/E/U, 20N5A/E/U) | 75 1% 1/4W | | 4-382-854-11 | SCREW (M3X10), P, SW (+) | |
| R1366 | 1-216-065-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 4.7K 5% 1/10W | | <CAPACITOR> | | |
| R1367 | 1-163-021-91 | CERAMIC CHIP 0.01μF (except SSM-14N5A/E/U, 20N5A/E/U) | 10% 50V | C001 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| R1368 | 1-216-073-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 10K 5% 1/10W | C002 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| R1369 | 1-216-073-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 10K 5% 1/10W | C003 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| R1370 | 1-216-059-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 2.7K 5% 1/10W | C004 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| | | | | C006 | 1-163-021-91 | CERAMIC CHIP 0.01μF (PVM-14N6A/E/U, 20N6A/E/U) | 10% 50V |
| R1371 | 1-216-095-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 82K 5% 1/10W | C007 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| R1372 | 1-216-097-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 100K 5% 1/10W | C008 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| R1373 | 1-216-119-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 820K 5% 1/10W | C010 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| R1374 | 1-216-107-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 270K 5% 1/10W | C011 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| R1375 | 1-216-065-00 | RES,CHIP (except SSM-14N5A/E/U, 20N5A/E/U) | 4.7K 5% 1/10W | C012 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| R1376 | 1-216-073-00 | RES,CHIP (PVM-14N6A/E/U, 20N6A/E/U) | 10K 5% 1/10W | C013 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| R1378 | 1-216-009-00 | RES,CHIP (PVM-14N6A/E/U, 20N6A/E/U) | 22 5% 1/10W | C014 | 1-163-253-11 | CERAMIC CHIP 120PF | 5% 50V |
| R1380 | 1-216-047-91 | RES, CHIP | 820 5% 1/10W | C015 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| R1381 | 1-216-047-91 | RES, CHIP | 820 5% 1/10W | C016 | 1-126-933-11 | ELECT 100μF | 20% 16V |
| | | | | C017 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C018 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C019 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C020 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C021 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C022 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| | | | | C023 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| | | | | C024 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| | | | | C025 | 1-136-165-00 | FILM 0.1μF | 5% 50V |
| | | | | C026 | 1-104-664-11 | ELECT 47μF | 20% 16V |
| | | | | C027 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| | | | | C028 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| | | | | C030 | 1-104-664-11 | ELECT 47μF | 20% 16V |
| | | | | C031 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| | | | | C032 | 1-104-664-11 | ELECT 47μF | 20% 16V |
| | | | | C101 | 1-107-907-11 | ELECT 22μF | 20% 50V |
| | | | | C102 | 1-107-635-11 | ELECT 4.7μF | 20% 160V |
| | | | | C103 | 1-102-050-00 | CERAMIC 0.01μF | 500V |
| | | | | C201 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C202 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C203 | 1-126-934-11 | ELECT 220μF | 20% 16V |
| | | | | C204 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C206 | 1-126-940-11 | ELECT 330μF | 20% 25V |
| | | | | C207 | 1-163-017-00 | CERAMIC CHIP 0.0047μF | 10% 50V |
| | | | | C208 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| | | | | C301 | 1-126-960-11 | ELECT 1μF | 20% 50V |
| | | | | C302 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| | | | | C303 | 1-107-714-11 | ELECT 10μF | 20% 50V |
| | | | | C304 | 1-164-004-11 | CERAMIC CHIP 0.1μF | 10% 25V |
| | | | | C305 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C306 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| | | | | C307 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| | | | | C308 | 1-126-961-11 | ELECT 2.2μF | 20% 50V |
| | | | | C309 | 1-164-182-11 | CERAMIC CHIP 0.0033μF | 10% 50V |
| | | | | C310 | 1-164-004-11 | CERAMIC CHIP 0.1μF (PVM-14N6A/E/U, 20N6A/E/U) | 10% 25V |
| | | | | C311 | 1-164-004-11 | CERAMIC CHIP 0.1μF (PVM-14N6A/E/U, 20N6A/E/U) | 10% 25V |
| | | | | C312 | 1-164-004-11 | CERAMIC CHIP 0.1μF (PVM-14N6A/E/U, 20N6A/E/U) | 10% 25V |
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| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|--------------|----------------------|---------|---------|----------------|-----------------------------------|----------|
| C313 | 1-163-023-00 | CERAMIC CHIP 0.015μF | 10% 50V | C373 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C314 | 1-163-023-00 | CERAMIC CHIP 0.015μF | 10% 50V | C374 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C315 | 1-163-023-00 | CERAMIC CHIP 0.015μF | 10% 50V | C375 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C316 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | C376 | 1-102-973-00 | CERAMIC 100PF | 5% 50V |
| | | | | C377 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| C317 | 1-126-940-11 | ELECT 330μF | 20% 25V | C378 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C318 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | C379 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C319 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | C380 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| C320 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | C381 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C321 | 1-126-964-11 | ELECT 10μF | 20% 50V | C382 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C322 | 1-126-963-11 | ELECT 4.7μF | 20% 50V | C383 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C323 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | C384 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C324 | 1-126-933-11 | ELECT 100μF | 20% 16V | C385 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C325 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | C386 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C326 | 1-126-957-11 | ELECT 0.22μF | 20% 50V | C387 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C327 | 1-102-110-00 | CERAMIC 220PF | 10% 50V | C388 | 1-163-809-11 | CERAMIC CHIP 0.047μF | 10% 25V |
| C328 | 1-163-099-00 | CERAMIC CHIP 18PF | 5% 50V | C389 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| C329 | 1-163-099-00 | CERAMIC CHIP 18PF | 5% 50V | C390 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C330 | 1-136-177-00 | FILM 1μF | 5% 50V | C401 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| C331 | 1-101-810-00 | CERAMIC 100PF | 5% 500V | C402 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| C332 | 1-136-177-00 | FILM 1μF | 5% 50V | C403 | 1-107-714-11 | ELECT 10μF | 20% 50V |
| C333 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | C404 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| C334 | 1-164-004-11 | CERAMIC CHIP 0.1μF | 10% 25V | C405 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C335 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | C406 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C336 | 1-126-964-11 | ELECT 10μF | 20% 50V | C407 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C337 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | C408 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C338 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C409 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| C339 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C410 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C340 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C411 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C341 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | C412 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C342 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C413 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C343 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C414 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C344 | 1-102-514-11 | CERAMIC 22PF | 5% 50V | C415 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C345 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | C416 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C351 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | C417 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C352 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | | | (except SSM-14N5A/E/U, 20N5A/E/U) | |
| C353 | 1-126-940-11 | ELECT 330μF | 20% 25V | C417 | 1-216-295-91 | SHORT 0 | |
| C354 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | | | (SSM-14N5A/E/U, 20N5A/E/U) | |
| C355 | 1-163-131-00 | CERAMIC CHIP 390PF | 5% 50V | C418 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| | | (20inch model) | | | | (except SSM-14N5A/E/U, 20N5A/E/U) | |
| C355 | 1-163-263-11 | CERAMIC CHIP 330PF | 5% 50V | C418 | 1-216-295-91 | SHORT 0 | |
| | | (14inch model) | | | | (SSM-14N5A/E/U, 20N5A/E/U) | |
| C356 | 1-163-121-00 | CERAMIC CHIP 150PF | 5% 50V | C419 | 1-163-113-00 | CERAMIC CHIP 68PF | 5% 50V |
| C357 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | | | (except SSM-14N5A/E/U, 20N5A/E/U) | |
| C358 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C419 | 1-216-295-91 | SHORT 0 | |
| C359 | 1-163-131-00 | CERAMIC CHIP 390PF | 5% 50V | | | (SSM-14N5A/E/U, 20N5A/E/U) | |
| | | (20inch model) | | C420 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C359 | 1-163-263-11 | CERAMIC CHIP 330PF | 5% 50V | | | (except SSM-14N5A/E/U, 20N5A/E/U) | |
| | | (14inch model) | | C420 | 1-216-295-91 | SHORT 0 | |
| | | | | | | (SSM-14N5A/E/U, 20N5A/E/U) | |
| C360 | 1-163-121-00 | CERAMIC CHIP 150PF | 5% 50V | C421 | 1-126-933-11 | ELECT 100μF | 20% 16V |
| C361 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | C422 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C362 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | C423 | 1-126-933-11 | ELECT 100μF | 20% 16V |
| C363 | 1-163-131-00 | CERAMIC CHIP 390PF | 5% 50V | | | | |
| | | (20inch model) | | C424 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C363 | 1-163-263-11 | CERAMIC CHIP 330PF | 5% 50V | C425 | 1-126-940-11 | ELECT 330μF | 20% 25V |
| | | (14inch model) | | C426 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C364 | 1-163-121-00 | CERAMIC CHIP 150PF | 5% 50V | C500 | 1-123-024-21 | ELECT 33μF | 160V |
| C366 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | C501 | △ 1-117-648-11 | FILM 15000PF | 3% 1.2KV |
| C367 | 1-126-933-11 | ELECT 100μF | 20% 16V | | | | |
| C368 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | | | | |
| C372 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | | | | |

| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|--------------|-----------------------------------|---------|--------------|----------------------|---------|
| C502 | △ 1-130-077-91 | FILM | 0.018μF 5% 400V (20inch model) | C660 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C502 | △ 1-129-716-91 | FILM | 0.015μF 5% 630V (14inch model) | C661 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C503 | △ 1-162-116-91 | CERAMIC | 680PF 10% 2KV | C662 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C504 | △ 1-162-116-91 | CERAMIC | 680PF 10% 2KV | C663 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C505 | 1-130-489-00 | FILM | 0.033μF 5% 50V | C664 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C506 | 1-136-541-11 | FILM | 1.5μF 5% 200V | C671 | 1-126-964-11 | ELECT 10μF | 20% 50V |
| C507 | 1-136-113-00 | FILM | 2μF 5% 200V | C1401 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C508 | 1-102-228-00 | CERAMIC | 470PF 10% 500V | C1402 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C509 | 1-107-636-11 | ELECT | 10μF 20% 160V | C1403 | 1-102-514-11 | CERAMIC 22PF | 5% 50V |
| C510 | 1-136-105-00 | FILM | 0.33μF 5% 200V (20inch model) | C1404 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C510 | 1-136-103-00 | FILM | 0.1μF 5% 200V (14inch model) | C1405 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C511 | 1-106-371-00 | MYLAR | 0.015μF 200V | C1406 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C512 | 1-102-228-00 | CERAMIC | 470PF 10% 500V | C1407 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C513 | 1-163-235-11 | CERAMIC CHIP | 22PF 5% 50V | C1408 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C514 | 1-107-924-11 | ELECT | 0.47μF 20% 50V | C1409 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C516 | 1-126-941-11 | ELECT | 470μF 20% 25V | C1410 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C517 | 1-101-810-00 | CERAMIC | 100PF 5% 500V | C1411 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C518 | 1-126-941-11 | ELECT | 470μF 20% 25V | C1412 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C519 | 1-101-810-00 | CERAMIC | 100PF 5% 500V | C1413 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C522 | 1-107-638-11 | ELECT | 33μF 20% 160V | C1414 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C523 | 1-162-114-00 | CERAMIC | 0.0047μF 2KV | C1415 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C524 | 1-163-021-91 | CERAMIC CHIP | 0.01μF 10% 50V | C1416 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C525 | 1-163-021-91 | CERAMIC CHIP | 0.01μF 10% 50V | C1417 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C551 | 1-107-910-11 | ELECT | 100μF 20% 50V | C1418 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C552 | 1-137-401-11 | FILM | 0.22μF 10% 100V | C1419 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C553 | 1-107-905-11 | ELECT | 4.7μF 20% 50V | C1420 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C554 | 1-163-009-11 | CERAMIC CHIP | 0.001μF 10% 50V | C1421 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C555 | 1-126-964-11 | ELECT | 10μF 20% 50V | C1422 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V |
| C556 | 1-126-964-11 | ELECT | 10μF 20% 50V | C1423 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C557 | 1-163-009-11 | CERAMIC CHIP | 0.001μF 10% 50V | C1424 | 1-102-129-00 | CERAMIC 0.01μF | 10% 50V |
| C559 | 1-164-004-11 | CERAMIC CHIP | 0.1μF 10% 25V | C1425 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C601 | △ 1-107-564-11 | FILM | 0.22μF 20% 300V | C1427 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C602 | △ 1-107-564-11 | FILM | 0.22μF 20% 300V | C1428 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C603 | △ 1-113-912-51 | CERAMIC | 0.0047μF 20% 250V | C1429 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| C604 | △ 1-113-912-51 | CERAMIC | 0.0047μF 20% 250V | C1430 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C605 | △ 1-113-912-51 | CERAMIC | 0.0047μF 20% 250V | C1431 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C606 | △ 1-113-912-51 | CERAMIC | 0.0047μF 20% 250V | C1432 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C607 | 1-113-608-11 | ELECT(BLOCK) | 470μF 20% 400V | C1433 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C609 | 1-136-064-00 | FILM | 0.002μF 3% 2KV | C1434 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C610 | 1-126-970-11 | ELECT | 330μF 20% 50V | C1435 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C611 | 1-164-161-11 | CERAMIC CHIP | 0.0022μF 10% 50V | C1436 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C612 | 1-107-911-11 | ELECT | 220μF 20% 50V | C1437 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C613 | 1-137-484-11 | FILM | 0.47μF 10% 630V | C1438 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C615 | △ 1-107-564-11 | FILM | 0.22μF 20% 300V | C1439 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C616 | △ 1-115-385-91 | CERAMIC | 0.0022μF 20% 125V | C1440 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C617 | △ 1-115-385-91 | CERAMIC | 0.0022μF 20% 125V | C1441 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C618 | △ 1-115-385-91 | CERAMIC | 0.0022μF 20% 125V | C1442 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C619 | △ 1-115-385-91 | CERAMIC | 0.0022μF 20% 125V | C1443 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| C651 | 1-117-791-11 | ELECT(BLOCK) | 1000μF 20% 160V | C1446 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V |
| C652 | 1-107-914-11 | ELECT | 1000μF 20% 25V | C1447 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C653 | 1-107-891-11 | ELECT | 3300μF 20% 25V | C1448 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V |
| C654 | 1-107-364-11 | FILM | 0.01μF 10% 200V | C1449 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C655 | 1-126-964-11 | ELECT | 10μF 20% 50V | C1450 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V |
| C657 | 1-163-251-11 | CERAMIC CHIP | 100PF 5% 50V | C1451 | 1-102-514-11 | CERAMIC 22PF | 5% 50V |
| C658 | 1-162-131-11 | CERAMIC | 220PF 10% 2KV | C1452 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V |
| | | | | C1453 | 1-101-810-00 | CERAMIC 100PF | 5% 500✓ |
| | | | | C1454 | 1-101-810-00 | CERAMIC 100PF | 5% 500✓ |
| | | | | C1455 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |
| | | | | C1456 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V |

| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|-----------------------------|----------------|--|---------|----------------|----------------|-----------------------------------|--------|
| C1457 | 1-163-245-11 | CERAMIC CHIP 56PF | 5% 50V | D103 | 8-719-302-43 | DIODE EL1Z | |
| C1458 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V | D201 | 8-719-947-26 | DIODE MTZJ-T-72-6.2C | |
| C1459 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D301 | 8-719-109-85 | DIODE RD5.1ESB2 | |
| C1460 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D302 | 8-719-302-43 | DIODE EL1Z | |
| C1461 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V | D351 | 8-719-914-43 | DIODE DAN202K | |
| C1462 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | D352 | 8-719-914-43 | DIODE DAN202K | |
| | | | | D353 | 8-719-914-43 | DIODE DAN202K | |
| C1463 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | D501 | 8-719-945-80 | DIODE ERC06-15S | |
| C1464 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | D502 | 8-719-979-85 | DIODE EGP20G | |
| C1465 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | D503 | 8-719-908-03 | DIODE GP08D | |
| C1466 | 1-115-339-11 | CERAMIC CHIP 0.1μF | 10% 50V | D504 | 8-719-908-03 | DIODE GP08D | |
| C1467 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | D506 | 8-719-302-43 | DIODE EL1Z | |
| | | | | D507 | 8-719-302-43 | DIODE EL1Z | |
| C1468 | 1-101-810-00 | CERAMIC 100PF | 5% 500V | D508 | 8-719-302-43 | DIODE EL1Z | |
| C1469 | 1-163-021-91 | CERAMIC CHIP 0.01μF | 10% 50V | D509 | 8-719-028-72 | DIODE RGP02-17EL-6433 | |
| C1471 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | D510 | 1-249-377-11 | CARBON 0.47 5% 1/4W F | |
| C1475 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D511 | 8-719-914-43 | DIODE DAN202K | |
| C1476 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D551 | 8-719-908-03 | DIODE GP08D | |
| C1477 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D552 | 8-719-109-85 | DIODE RD5.1ESB2 | |
| C1478 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D601 | △ 8-719-025-88 | DIODE GBU4JL-6088 | |
| C1479 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | D605 | 8-719-302-43 | DIODE EL1Z | |
| C1481 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | D606 | 8-719-921-63 | DIODE MTZJ-7.5B | |
| C1483 | 1-163-259-91 | CERAMIC CHIP 220PF | 5% 50V | D607 | 8-719-302-43 | DIODE EL1Z | |
| C1484 | 1-163-229-11 | CERAMIC CHIP 12PF | 5% 50V | D609 | 8-719-302-43 | DIODE EL1Z | |
| C1485 | 1-163-229-11 | CERAMIC CHIP 12PF | 5% 50V | D610 | 8-719-302-43 | DIODE EL1Z | |
| C1486 | 1-163-251-11 | CERAMIC CHIP 100PF | 5% 50V | D611 | 8-719-991-33 | DIODE 1SS133T-77 | |
| C1487 | 1-163-009-11 | CERAMIC CHIP 0.001μF | 10% 50V | D651 | 8-719-312-10 | DIODE RU4AM-T3 | |
| C1488 | 1-163-235-11 | CERAMIC CHIP 22PF | 5% 50V | D653 | 8-719-045-48 | DIODE FML-G12S | |
| C1601 | △ 1-801-267-11 | VARISTOR TNR10V 431K 660 | | D656 | 8-719-046-66 | DIODE SLR-56MC3F | |
| <CONNECTOR> | | | | <FUSE> | | | |
| CN051 | * 1-564-508-11 | PLUG, CONNECTOR 5P | | F601 | △ 1-576-231-11 | FUSE (H.B.C.) (4A/250V) | |
| CN052 | * 1-770-747-11 | CONNECTOR, BOARD TO BOARD 12P | | F602 | △ 1-576-231-11 | FUSE (4A/250V) (PVM-14N5MDE) | |
| CN201 | * 1-564-506-11 | PLUG, CONNECTOR 3P | | F651 | △ 1-532-745-11 | FUSE, GLASS TUBE (3.15A/125V) | |
| CN351 | * 1-564-509-11 | PLUG, CONNECTOR 6P | | <FERRITE BEAD> | | | |
| CN401 | * 1-564-509-11 | PLUG, CONNECTOR 6P | | FB001 | 1-410-397-21 | FERRITE 1.1μH | |
| CN402 | * 1-564-510-11 | PLUG, CONNECTOR 7P | | FB601 | 1-410-396-41 | FERRITE 0.45μH | |
| | | (except SSM-14N5A/E/U, 20N5A/E/U) | | FB602 | 1-410-396-41 | FERRITE 0.45μH | |
| CN403 | * 1-564-510-11 | PLUG, CONNECTOR 7P | | FB603 | 1-410-396-41 | FERRITE 0.45μH | |
| | | (except PVM-14N5A/E/U, 14N5MDE, 20N5A/E/U) | | JW390 | 1-543-840-11 | FERRITE 0μH | |
| CN501 | * 1-580-798-11 | CONNECTOR PIN (DY) 6P | | <IC> | | | |
| CN502 | * 1-508-768-00 | PIN, CONNECTOR (5mm PITCH) 6P | | IC001 | 8-752-895-94 | IC CXP85116B-670S | |
| CN601 | * 1-580-843-11 | PIN, CONNECTOR (POWER) | | IC002 | 8-759-527-68 | IC M24C01-BN6 | |
| CN602 | * 1-508-765-00 | PIN, CONNECTOR (5mm PITCH) 3P | | IC003 | 8-759-279-41 | IC MM1096BD | |
| CN651 | 1-695-915-11 | TAB (CONTACT) | | IC201 | 8-759-324-57 | IC TDA7052A | |
| <COMPOSITION CIRCUIT BLOCK> | | | | IC301 | 8-752-088-38 | IC CXA2060BS | |
| CP301 | 1-467-554-21 | FILTER BLOCK, COMB | | IC401 | 8-759-000-48 | IC MC14052BCP | |
| <DIODE> | | | | | | (except SSM-14N5A/E/U, 20N5A/E/U) | |
| D001 | 8-719-914-43 | DIODE DAN202K | | IC402 | 8-759-984-96 | IC BA7604N | |
| D002 | 8-719-914-43 | DIODE DAN202K | | | | (except SSM-14N5A/E/U, 20N5A/E/U) | |
| D003 | 8-719-914-43 | DIODE DAN202K | | IC551 | 8-759-192-71 | IC STV9379 | |
| D004 | 8-719-914-43 | DIODE DAN202K | | IC552 | 8-759-145-58 | IC μPC4558C | |
| D005 | 8-719-914-43 | DIODE DAN202K | | IC601 | 8-749-010-84 | IC STR-S6708 | |
| D101 | 8-719-914-43 | DIODE DAN202K | | IC651 | 8-749-921-89 | IC SE115N | |
| D102 | △ 8-719-983-38 | DIODE MTZJ-T-77-36B | | | | | |



| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|-----------------------------|----------------|---------|--------------|-----------------------------|-----------------------------------|
| IC652 | 8-759-231-53 | IC TA7805S | | Q365 | 8-729-026-48 | TRANSISTOR 2SA1037AK-T146-Q | |
| IC654 | 8-759-701-59 | IC NJM78M09FA | | Q401 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| | | <CHIP CONDUCTOR> | | Q402 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| JR001 | 1-216-295-91 | SHORT 0 | | Q403 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| JR002 | 1-216-295-91 | SHORT 0 | | Q404 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| JR003 | 1-216-295-91 | SHORT 0 | | Q405 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| JR004 | 1-216-295-91 | SHORT 0 | | Q501 | 8-729-810-49 | TRANSISTOR 2SD1877S-SONY-CA | (14inch model) |
| JR005 | 1-216-295-91 | SHORT 0 | | Q501 | 8-729-821-87 | TRANSISTOR 2SD1878-CA | (20inch model) |
| JR006 | 1-216-295-91 | SHORT 0 | | Q502 | 8-729-140-50 | TRANSISTOR 2SC3209LK | |
| JR007 | 1-216-295-91 | SHORT 0 | | Q551 | 8-729-019-01 | TRANSISTOR 2SD2394-EF | |
| JR008 | 1-216-295-91 | SHORT 0 | | Q601 | 8-729-025-04 | TRANSISTOR 2SC3852A | |
| JR009 | 1-216-295-91 | SHORT 0 | | | | <RESISTOR> | |
| JR010 | 1-216-295-91 | SHORT 0 | | R001 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| | | <COIL> | | R002 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L001 | 1-408-603-31 | INDUCTOR 10μH | | R003 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L101 | 1-421-465-00 | COIL, FERRITE CHOKE 68μH | | R004 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L501 | 1-421-465-00 | COIL, FERRITE CHOKE 68μH | | R005 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L502 | △ 1-459-105-21 | COIL 2.7μH | | R006 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L503 | 1-412-553-11 | INDUCTOR 3.3mH | | R007 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L504 | 1-459-104-00 | COIL, WITH CORE | | R008 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L505 | △ 1-459-760-13 | COIL, HORIZONTAL LINEARITY | (14inch model) | R009 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L505 | △ 1-459-769-13 | COIL, HORIZONTAL LINEARITY | (20inch model) | R010 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L510 | 1-407-365-00 | COIL,CHOKE | | R011 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L551 | 1-459-104-00 | COIL, WITH CORE | | R012 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| L601 | 1-411-541-11 | COIL, CHOKE 7.2μH | | R013 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| | | <PHOTO COUPLER> | | R014 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| PH601 | 8-749-923-50 | PHOTO COUPLER PC111YS | | R015 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| | | <TRANSISTOR> | | R016 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q004 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R017 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q005 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R018 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q101 | 8-729-200-17 | TRANSISTOR 2SA1091-O | | R019 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q102 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R020 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q201 | 8-729-019-01 | TRANSISTOR 2SD2394-EF | | R021 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q301 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R022 | 1-216-025-00 | RES,CHIP 100 5% 1/10W | |
| Q302 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R023 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q351 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R024 | 1-249-393-11 | CARBON 10 5% 1/4W | (PVM-14N5M/E) |
| Q352 | 8-729-026-48 | TRANSISTOR 2SA1037AK-T146-Q | | R025 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q353 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R027 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q354 | 8-729-026-48 | TRANSISTOR 2SA1037AK-T146-Q | | R028 | 1-249-393-11 | CARBON 10 5% 1/4W | (20inch model) |
| Q355 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R029 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q356 | 8-729-026-48 | TRANSISTOR 2SA1037AK-T146-Q | | R030 | 1-249-393-11 | CARBON 10 5% 1/4W | (PVM-14N6A/E/U, 20N6A/E/U) |
| Q357 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R031 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q358 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R032 | 1-249-393-11 | CARBON 10 5% 1/4W | (except SSM-14N5A/E/U, 20N5A/E/U) |
| Q359 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R033 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| Q360 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R035 | 1-216-295-91 | SHORT 0 | |
| Q361 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R036 | 1-216-025-91 | RES,CHIP 100 5% 1/10W | |
| Q362 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R037 | 1-216-025-91 | RES,CHIP 100 5% 1/10W | |
| Q363 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R038 | 1-216-025-91 | RES,CHIP 100 5% 1/10W | |
| Q364 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | R039 | 1-216-025-91 | RES,CHIP 100 5% 1/10W | |
| | | | | R040 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| | | | | R041 | 1-216-073-00 | RES,CHIP 10K 5% 1/10W | |
| | | | | R042 | 1-216-025-00 | RES,CHIP 100 5% 1/10W | |

| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|-------------|-----------------------------------|---------|--------------|-------------|-----------------------------------|
| R043 | 1-216-025-00 | RES,CHIP | 100 5% 1/10W | R325 | 1-216-075-00 | RES,CHIP | 12K 5% 1/10W (14inch model) |
| R044 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | | | | |
| R045 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R326 | 1-216-059-00 | RES,CHIP | 2.7K 5% 1/10W (20inch model) |
| R057 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R326 | 1-216-063-91 | RES,CHIP | 3.9K 5% 1/10W (14inch model) |
| R058 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R327 | 1-216-097-91 | RES,CHIP | 100K 5% 1/10W |
| | | | | R328 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R059 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R329 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W |
| R060 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | | | | |
| R101 | 1-216-390-11 | METAL OXIDE | 1.25%3W F (20inch model) | R330 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W |
| R101 | 1-216-391-11 | METAL OXIDE | 1.5 5% 3W F (14inch model) | R331 | 1-216-033-00 | RES,CHIP | 220 5% 1/10W |
| R102 | 1-216-667-11 | METAL CHIP | 4.7K 0.50%1/10W | R332 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| | | | | R333 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W |
| R103 | 1-216-115-00 | RES,CHIP | 560K 5% 1/10W | R351 | 1-216-670-11 | METAL CHIP | 6.2K 0.50%1/10W (14inch model) |
| R104 | 1-218-754-11 | METAL CHIP | 120K 0.50%1/10W | | | | |
| R105 | 1-218-756-11 | METAL CHIP | 150K 0.50%1/10W | R351 | 1-216-679-11 | METAL CHIP | 15K 0.50%1/10W (20inch model) |
| R106 | 1-216-097-91 | RES,CHIP | 100K 5% 1/10W | R352 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W |
| R107 | 1-216-097-91 | RES,CHIP | 100K 5% 1/10W | R353 | 1-249-393-11 | CARBON | 10 5% 1/4W |
| | | | | R354 | 1-249-393-11 | CARBON | 10 5% 1/4W |
| R108 | △ 1-218-756-91 | METAL CHIP | 150K 0.50%1/10W (20inch model) | R355 | 1-249-393-11 | CARBON | 10 5% 1/4W |
| R108 | △ 1-218-758-91 | METAL CHIP | 180K 0.50%1/10W (14inch model) | | | | |
| R110 | △ 1-218-768-91 | METAL CHIP | 470K 0.50%1/10W (14inch model) | R356 | 1-216-059-00 | RES,CHIP | 2.7K 5% 1/10W |
| R110 | △ 1-218-769-91 | METAL CHIP | 510K 0.50%1/10W (20inch model) | R357 | 1-216-638-11 | METAL CHIP | 300 0.50%1/10W (20inch model) |
| R201 | 1-216-093-00 | RES,CHIP | 68K 5% 1/10W | R357 | 1-216-641-11 | METAL CHIP | 390 0.50%1/10W (14inch model) |
| | | | | R358 | 1-216-017-91 | RES,CHIP | 47 5% 1/10W |
| R202 | 1-216-069-00 | RES,CHIP | 6.8K 5% 1/10W | R360 | 1-216-059-00 | RES,CHIP | 2.7K 5% 1/10W |
| R203 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | | | | |
| R204 | 1-215-907-11 | METAL OXIDE | 22 5% 3W F | R361 | 1-216-638-11 | METAL CHIP | 300 0.50%1/10W (20inch model) |
| R205 | 1-216-056-00 | RES,CHIP | 2K 5% 1/10W | R361 | 1-216-641-11 | METAL CHIP | 390 0.50%1/10W (14inch model) |
| R207 | 1-216-055-00 | RES,CHIP | 1.8K 5% 1/10W | R362 | 1-216-017-91 | RES,CHIP | 47 5% 1/10W |
| | | | | R364 | 1-216-059-00 | RES,CHIP | 2.7K 5% 1/10W |
| R208 | 1-216-065-00 | RES,CHIP | 4.7K 5% 1/10W | R365 | 1-216-638-11 | METAL CHIP | 300 0.50%1/10W (20inch model) |
| R209 | 1-216-057-00 | RES,CHIP | 2.2K 5% 1/10W | | | | |
| R210 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R365 | 1-216-641-11 | METAL CHIP | 390 0.50%1/10W (14inch model) |
| R211 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R366 | 1-216-017-91 | RES,CHIP | 47 5% 1/10W |
| R301 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | R368 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| | | | | R369 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R302 | 1-216-675-11 | METAL CHIP | 10K 0.50%1/10W | R370 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R303 | 1-216-057-00 | RES,CHIP | 2.2K 5% 1/10W | | | | |
| R304 | 1-216-081-00 | RES,CHIP | 22K 5% 1/10W | R371 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R305 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R372 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R306 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R373 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| | | | | R374 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R307 | 1-216-057-00 | RES,CHIP | 2.2K 5% 1/10W | R375 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R308 | 1-216-651-11 | METAL CHIP | 1K 0.50%1/10W | | | | |
| R309 | 1-216-671-11 | METAL CHIP | 6.8K 0.50%1/10W | R376 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R310 | 1-216-651-11 | METAL CHIP | 1K 0.50%1/10W | R377 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W |
| R311 | 1-216-671-11 | METAL CHIP | 6.8K 0.50%1/10W | R378 | 1-215-437-00 | METAL | 4.7K 1% 1/4W (20inch model) |
| | | | | R378 | 1-215-440-00 | METAL | 6.2K 1% 1/4W (14inch model) |
| R312 | 1-216-651-11 | METAL CHIP | 1K 0.50%1/10W | R379 | 1-249-429-11 | CARBON | 10K 5% 1/4W |
| R313 | 1-216-671-11 | METAL CHIP | 6.8K 0.50%1/10W | | | | |
| R314 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R380 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R315 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R381 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W |
| R316 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R382 | 1-215-435-00 | METAL | 3.9K 1% 1/4W (20inch model) |
| | | | | R382 | 1-215-438-00 | METAL | 5.1K 1% 1/4W (14inch model) |
| R317 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R383 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R318 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | | | | |
| R319 | 1-216-051-00 | RES,CHIP | 1.2K 5% 1/10W | | | | |
| R320 | 1-216-051-00 | RES,CHIP | 1.2K 5% 1/10W | | | | |
| R321 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | | | | |
| | | | | | | | |
| R322 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | | | | |
| R323 | 1-216-067-00 | RES,CHIP | 5.6K 5% 1/10W | | | | |
| R324 | 1-202-826-00 | SOLID | 4.7K 10% 1/2W | | | | |
| R325 | 1-216-071-00 | RES,CHIP | 8.2K 5% 1/10W (20inch model) | | | | |

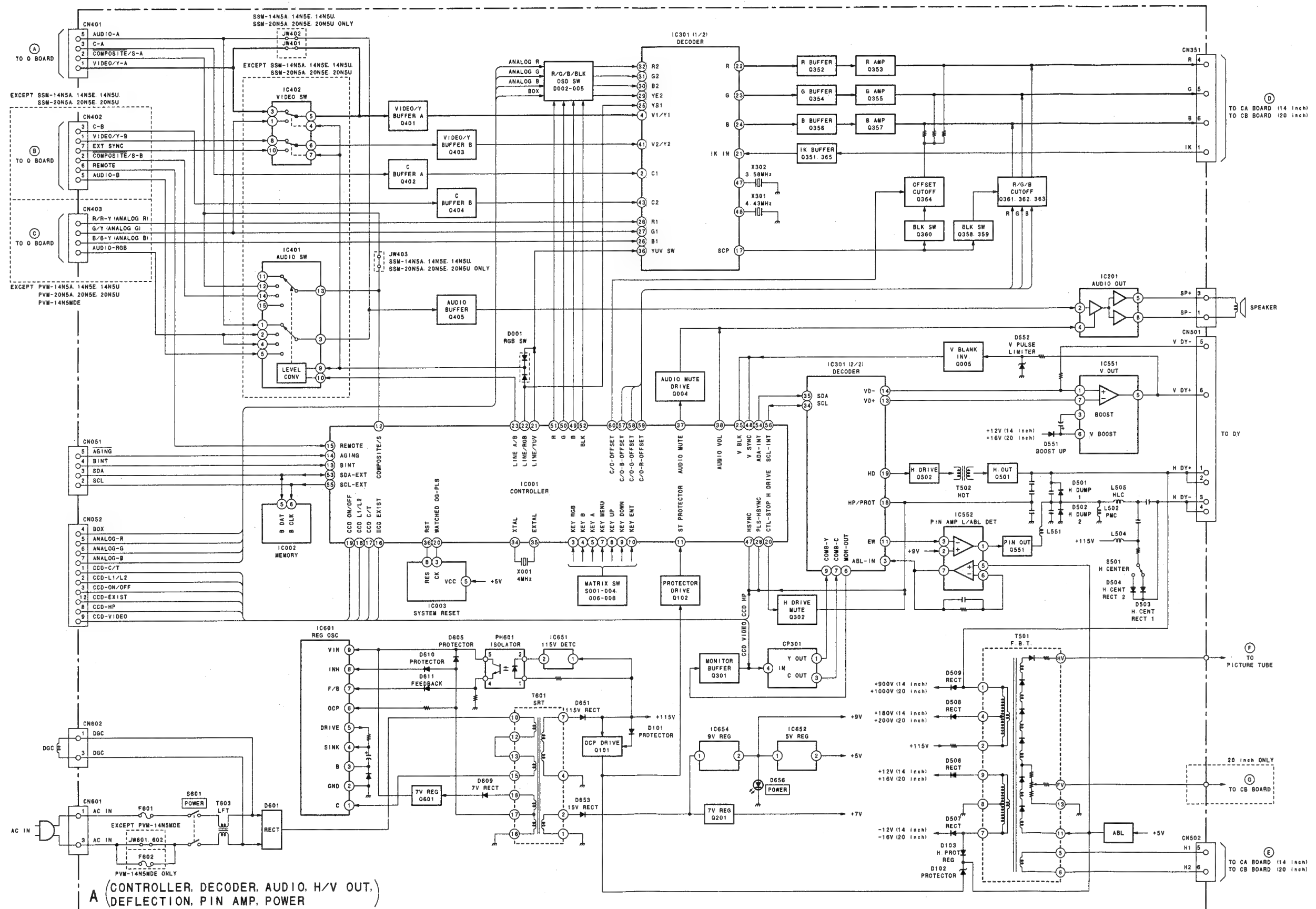
| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|--------------|-------------|-----------------------------------|---------|----------------|-----------------------|-----------------------------------|
| R384 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R559 | 1-216-077-00 | RES, CHIP | 15K 5% 1/10W (14inch model) |
| R385 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R560 | 1-216-097-91 | RES,CHIP | 100K 5% 1/10W (20inch model) |
| R386 | 1-215-433-00 | METAL | 3.3K 1% 1/4W (20inch model) | R560 | 1-216-105-91 | RES, CHIP | 220K 5% 1/10W (14inch model) |
| R386 | 1-215-436-00 | METAL | 4.3K 1% 1/4W (14inch model) | R561 | 1-249-392-11 | CARBON | 8.2 5% 1/4W F (20inch model) |
| R387 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R561 | 1-532-727-11 | LINK, IC (0.25A/150V) | (14inch model) |
| R388 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R562 | 1-216-670-11 | METAL CHIP | 6.2K 0.50%1/10W (14inch model) |
| R389 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R562 | 1-216-675-11 | METAL CHIP | 10K 0.50%1/10W (20inch model) |
| R390 | 1-216-663-11 | METAL CHIP | 3.3K 0.50%1/10W (20inch model) | R563 | 1-216-675-11 | METAL CHIP | 10K 0.50%1/10W |
| R390 | 1-216-664-11 | METAL CHIP | 3.6K 0.50%1/10W (14inch model) | R564 | 1-216-061-00 | RES,CHIP | 3.3K 5% 1/10W |
| R391 | 1-216-664-11 | METAL CHIP | 3.6K 0.50%1/10W (14inch model) | R565 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W |
| R391 | 1-216-665-11 | METAL CHIP | 3.9K 0.50%1/10W (20inch model) | R569 | 1-216-113-00 | RES,CHIP | 470K 5% 1/10W |
| R392 | 1-216-664-11 | METAL CHIP | 3.6K 0.50%1/10W (14inch model) | R570 | 1-216-421-11 | METAL OXIDE | 12 5% 1W F (20inch model) |
| R392 | 1-216-667-11 | METAL CHIP | 4.7K 0.50%1/10W (20inch model) | R570 | 1-216-422-11 | METAL OXIDE | 18 5% 1W F (14inch model) |
| R393 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R571 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W |
| R394 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W | R601 | △ 1-202-885-91 | SOLID | 1M 20% 1/2W |
| R395 | 1-216-683-11 | METAL CHIP | 22K 0.50%1/10W (14inch model) | R602 | 1-216-490-11 | METAL OXIDE | 39K 5% 3W F |
| R395 | 1-216-691-11 | METAL CHIP | 47K 0.50%1/10W (20inch model) | R604 | 1-215-877-11 | METAL OXIDE | 22K 5% 1W F |
| R401 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R605 | 1-215-869-11 | METAL OXIDE | 1K 5% 1W F |
| R402 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R606 | 1-249-421-11 | CARBON | 2.2K 5% 1/4W |
| R403 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R607 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R404 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R608 | 1-217-241-00 | WIREWOUND | 0.22 10% 3W F |
| R405 | 1-216-049-91 | RES,CHIP | 1K 5% 1/10W | R609 | 1-247-807-31 | CARBON | 100 5% 1/4W |
| R406 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W | R610 | 1-216-471-11 | METAL OXIDE | 27 5% 3W F |
| R501 | 1-216-063-91 | RES,CHIP | 3.9K 5% 1/10W | R611 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R502 | 1-216-071-00 | RES,CHIP | 8.2K 5% 1/10W | R612 | △ 1-205-998-11 | CEMENTED | 1 5% 10W (20inch model) |
| R503 | 1-215-895-11 | METAL OXIDE | 3.3K 5% 2W F (20inch model) | R612 | △ 1-220-820-31 | CEMENTED | 1.5 5% 10W (14inch model) |
| R503 | 1-215-896-00 | METAL OXIDE | 4.7K 5% 2W F (14inch model) | R613 | 1-249-426-11 | CARBON | 5.6K 5% 1/4W |
| R506 | 1-260-326-11 | CARBON | 680 5% 1/2W | R614 | △ 1-202-725-91 | SOLID | 3.3M 10% 1/2W |
| R507 | 1-216-423-11 | METAL OXIDE | 27 5% 1W F | R615 | △ 1-202-725-91 | SOLID | 3.3M 10% 1/2W |
| R508 | 1-215-860-11 | METAL OXIDE | 33 5% 1W F (20inch model) | R616 | △ 1-205-998-11 | CEMENTED | 1 5% 10W (20inch model) |
| R508 | 1-215-862-11 | METAL OXIDE | 68 5% 1W F (14inch model) | R616 | △ 1-220-820-31 | CEMENTED | 1.5 5% 10W (14inch model) |
| R513 | 1-247-887-00 | CARBON | 220K 5% 1/4W | R622 | 1-249-424-11 | CARBON | 3.9K 5% 1/4W |
| R514 | 1-249-419-11 | CARBON | 1.5K 5% 1/4W F | R623 | 1-216-490-11 | METAL OXIDE | 39K 5% 3W F |
| R551 | 1-216-429-00 | METAL OXIDE | 270 5% 1W F | R657 | 1-249-417-11 | CARBON | 1K 5% 1/4W |
| R552 | 1-216-349-00 | METAL OXIDE | 1 5% 1W F | R1201 | 1-215-907-11 | METAL OXIDE | 22 5% 3W F |
| R553 | 1-216-675-11 | METAL CHIP | 10K 0.50%1/10W | R1401 | 1-216-073-00 | RES,CHIP | 10K 5% 1/10W |
| R554 | 1-216-684-91 | METAL CHIP | 24K 0.50%1/10W (20inch model) | R1402 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W |
| R554 | 1-216-686-11 | METAL CHIP | 30K 0.50%1/10W (14inch model) | R1403 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W |
| R556 | 1-244-805-91 | CARBON | 1.5 5% 1/2W | R1404 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W |
| R557 | 1-216-684-91 | METAL CHIP | 24K 0.50%1/10W (20inch model) | R1405 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W |
| R557 | 1-216-686-11 | METAL CHIP | 30K 0.50%1/10W (14inch model) | R1406 | 1-216-027-00 | RES,CHIP | 120 5% 1/10W |
| R558 | 1-216-675-11 | METAL CHIP | 10K 0.50%1/10W | R1407 | 1-216-027-00 | RES,CHIP | 120 5% 1/10W |
| R559 | 1-216-063-91 | RES,CHIP | 3.9K 5% 1/10W (20inch model) | R1408 | 1-216-027-00 | RES,CHIP | 120 5% 1/10W |
| | | | | R1409 | 1-216-027-00 | RES,CHIP | 120 5% 1/10W |
| | | | | R1410 | 1-216-027-00 | RES,CHIP | 120 5% 1/10W |
| | | | | R1411 | 1-216-027-00 | RES,CHIP | 120 5% 1/10W |
| | | | | R1412 | 1-247-807-31 | CARBON | 100 5% 1/4W |
| | | | | R1414 | 1-216-001-00 | RES,CHIP | 10 5% 1/10W |

| Ref.No. | Part No. | Description | Remark | Ref.No. | Part No. | Description | Remark |
|---------|----------------|-----------------------------------|--------------|---------|----------------|-------------------------------|----------|
| R1415 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | C711 | 1-102-002-00 | CERAMIC 680PF | 10% 500V |
| R1416 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | C712 | 1-102-002-00 | CERAMIC 680PF | 10% 500V |
| R1417 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | C716 | 1-126-940-11 | ELECT 330μF | 20% 25V |
| R1418 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | | | | |
| | | | | C721 | 1-107-667-11 | ELECT 2.2μF | 20% 400V |
| R1419 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | C723 | 1-162-116-00 | CERAMIC 680PF | 10% 2KV |
| R1420 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | C724 | △ 1-102-959-91 | CERAMIC 22PF | 5% 50V |
| R1421 | 1-216-025-91 | RES,CHIP | 100 5% 1/10W | | | | |
| | | | | | <CONNECTOR> | | |
| | <SWITCH> | | | CN701 | * 1-508-768-00 | PIN, CONNECTOR (5mm PITCH) 6P | |
| S001 | 1-571-532-21 | SWITCH, TACTIL | | CN702 | * 1-564-509-11 | PLUG, CONNECTOR 6P | |
| S002 | 1-571-532-21 | SWITCH, TACTIL | | CN703 | 1-695-915-11 | TAB (CONTACT) | |
| S003 | 1-571-532-21 | SWITCH, TACTIL | | | | | |
| S004 | 1-571-532-21 | SWITCH, TACTIL | | | | | |
| S006 | 1-571-532-21 | SWITCH, TACTIL | | | <DIODE> | | |
| | | (PVM-14N6A/E/U, 20N6A/E/U) | | D710 | 8-719-991-33 | DIODE 1SS133T-77 | |
| | | | | D711 | 8-719-991-33 | DIODE 1SS133T-77 | |
| S007 | 1-571-532-21 | SWITCH, TACTIL | | D712 | 8-719-991-33 | DIODE 1SS133T-77 | |
| | | (except SSM-14N5A/E/U, 20N5A/E/U) | | D713 | 8-719-991-33 | DIODE 1SS133T-77 | |
| S008 | 1-571-532-21 | SWITCH, TACTIL | | D714 | 8-719-991-33 | DIODE 1SS133T-77 | |
| | | (except SSM-14N5A/E/U, 20N5A/E/U) | | | | | |
| S501 | 1-554-186-00 | SWITCH, LEVER | | D715 | 8-719-991-33 | DIODE 1SS133T-77 | |
| S601 | △ 1-571-433-31 | SWITCH, PUSH (AC POWER) | | D716 | 8-719-991-33 | DIODE 1SS133T-77 | |
| | | | | | | | |
| | <SPARK GAP> | | | | <JACK> | | |
| SG501 | 1-519-422-11 | GAP, SPARK | | J701 | △ 1-526-819-11 | SOCKET, PICTURE TUBE | |
| | | | | | | | |
| | <TRANSFORMER> | | | | <COIL> | | |
| T501 | △ 1-453-277-11 | TRANSFORMER ASSY, FLYBACK | | | | | |
| | | (NX-4008//U2A4) (20inch model) | | L701 | 1-410-671-31 | INDUCTOR 47μH | |
| T501 | △ 1-453-278-11 | TRANSFORMER ASSY, FLYBACK | | | | | |
| | | (NX-4301//U2A4) (14inch model) | | | <TRANSISTOR> | | |
| T502 | 1-437-090-31 | HDT | | Q701 | 8-729-119-76 | TRANSISTOR 2SA1175-HFE | |
| T601 | 1-429-265-11 | TRANSFORMER, CONVERTER (SRT) | | Q710 | 8-729-200-17 | TRANSISTOR 2SA1091-O | |
| T603 | △ 1-429-482-11 | TRANSFORMER, LINE FILTER | | Q711 | 8-729-200-17 | TRANSISTOR 2SA1091-O | |
| | | | | Q712 | 8-729-200-17 | TRANSISTOR 2SA1091-O | |
| | | | | Q713 | 8-729-906-70 | TRANSISTOR BF871-127 | |
| | <THERMISTOR> | | | | | | |
| THP601 | △ 1-808-059-32 | THERMISTOR, POSITIVE | | Q714 | 8-729-906-70 | TRANSISTOR BF871-127 | |
| | | | | Q715 | 8-729-906-70 | TRANSISTOR BF871-127 | |
| | | | | | | | |
| | <CRYSTAL> | | | | <RESISTOR> | | |
| X001 | 1-567-781-11 | VIBRATOR, CRYSTAL | | R701 | 1-202-846-00 | SOLID 470K | 20% 1/2W |
| X301 | 1-567-504-11 | OSCILLATOR, CRYSTAL | | R702 | 1-202-846-00 | SOLID 470K | 20% 1/2W |
| X302 | 1-567-505-11 | OSCILLATOR, CRYSTAL | | R703 | 1-202-719-00 | SOLID 1M | 20% 1/2W |
| | | | | R704 | 1-202-838-00 | SOLID 100K | 20% 1/2W |
| | | | | R705 | 1-202-842-11 | SOLID 220K | 20% 1/2W |
| | | | | | | | |
| | * A-1331-827-A | CA BOARD, COMPLETE | | R706 | 1-202-818-00 | SOLID 1K | 20% 1/2W |
| | | ***** | | R707 | 1-202-818-00 | SOLID 1K | 20% 1/2W |
| | | (14inch model) | | R708 | 1-202-818-00 | SOLID 1K | 20% 1/2W |
| | * 4-374-912-01 | COVER (MAIN), CV VOL | | R715 | 1-247-807-31 | CARBON 100 | 5% 1/4W |
| | * 4-374-913-01 | COVER (REAR LID), CV VOL | | R716 | 1-247-807-31 | CARBON 100 | 5% 1/4W |
| | | | | | | | |
| | <CAPACITOR> | | | R717 | 1-247-807-31 | CARBON 100 | 5% 1/4W |
| | | | | R722 | 1-216-372-11 | METAL OXIDE 1.8 | 5% 2W |
| | | | | R723 | 1-216-487-11 | METAL OXIDE 12K | 5% 3W |
| | | | | R724 | 1-216-487-11 | METAL OXIDE 12K | 5% 3W |
| | | | | R725 | 1-216-487-11 | METAL OXIDE 12K | 5% 3W |
| C709 | 1-136-601-11 | FILM 0.01μF | 10% 630V | | | | |
| C710 | 1-102-002-00 | CERAMIC 680PF | 10% 500V | | | | |

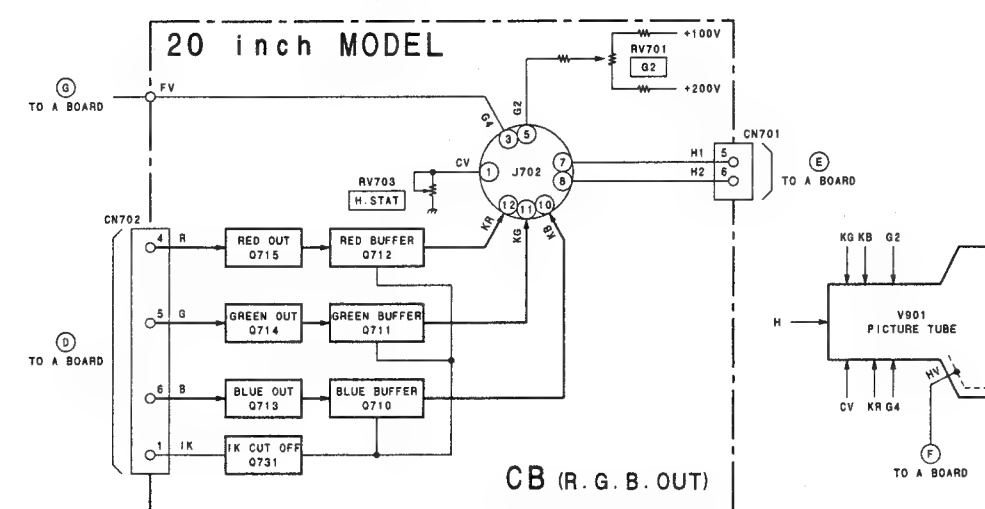
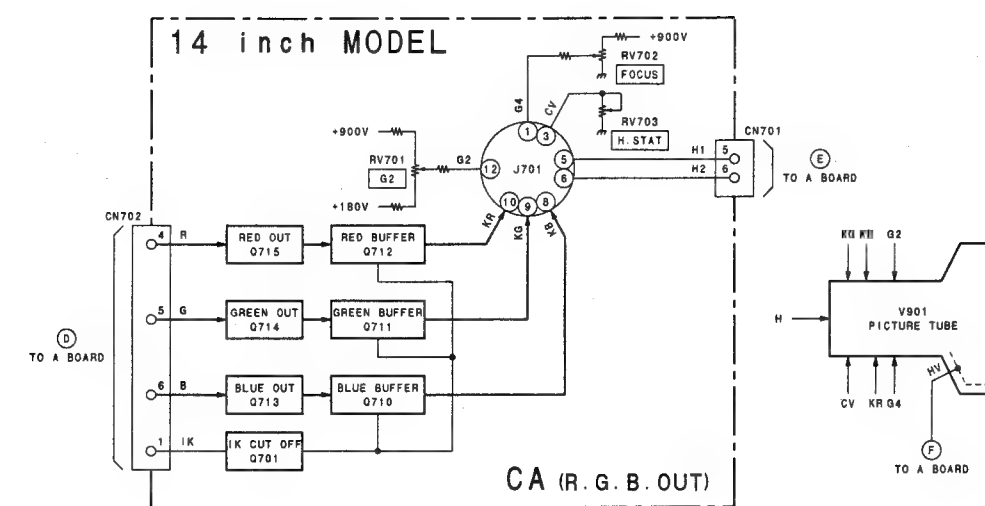
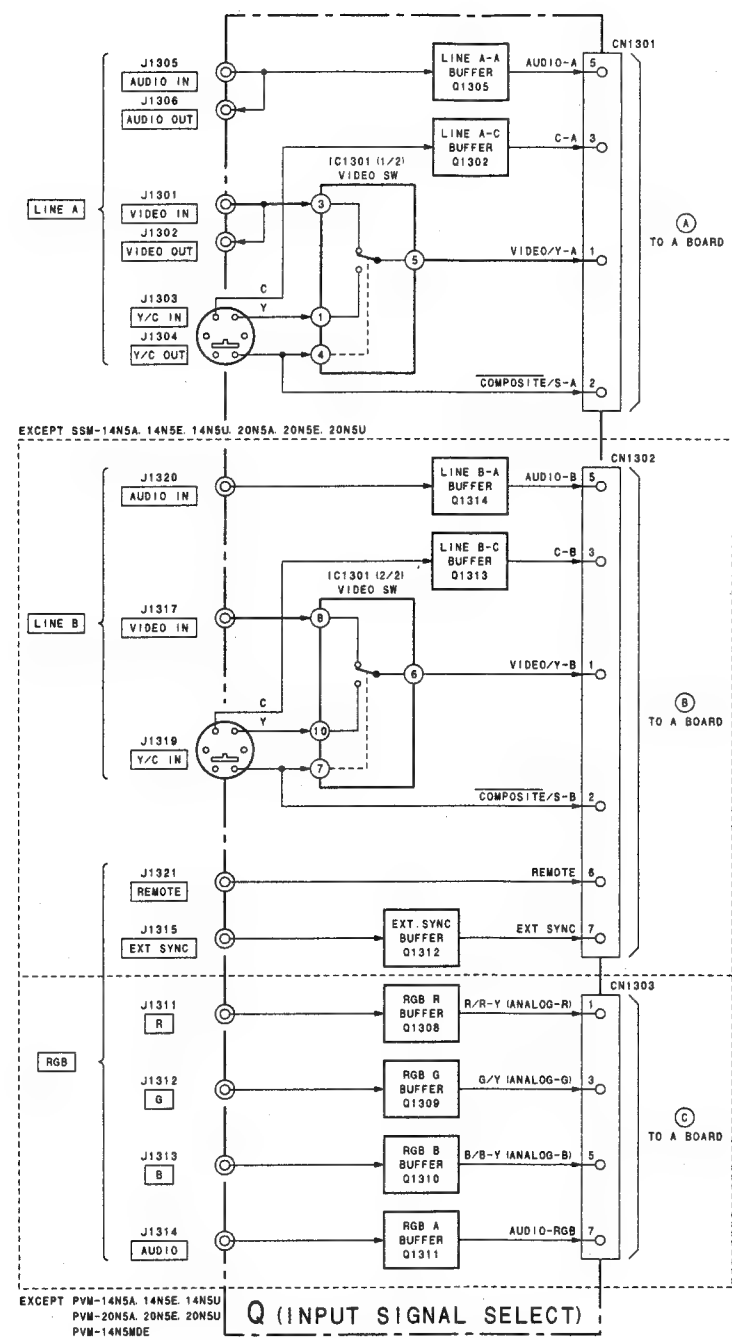
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| Ref.No. | Part No. | Description | Remark |
|-----------------------------------|----------------|---|--------|
| ACCESSORIES AND PACKING MATERIALS | | | |
| ***** | | | |
| | △ 1-534-827-21 | CORD, POWER (US/CND model) | |
| | △ 1-551-631-22 | CORD, POWER (PVM-14N5MDE) | |
| | △ 1-782-929-11 | CORD, POWER SUPPLY (BS 3P) (AEP, AUS model) | |
| | 3-864-152-11 | MANUAL, INSTRUCTION (SSM-14N5A/E/U, 20N5A/E/U) (ENGLISH, FRENCH,GERMAN, ITALIAN, SPANISH, CHINESE) | |
| | 3-864-157-11 | MANUAL, INSTRUCTION (PVM-14N5A/E/U, 14N6A/E/U, PVM-20N5A/E/U, 20N6A/E/U) (ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, CHINESE) | |
| | 3-864-165-11 | MANUAL, INSTRUCTION (PVM-14N5MDE) (ENGLISH, FRENCH, GERMAN, ITALIAN, SPANISH, CHINESE) | |
| | 4-048-073-01 | COVER, DROP PROTECTION (PVM-14N5MDE) | |
| | * 4-048-606-01 | INDIVIDUAL CARTON (14inch model) | |
| | * 4-048-607-01 | CUSHION (UPPER) (ASSY) (14inch model) | |
| | * 4-048-608-01 | CUSHION (LOWER) (ASSY) (14inch model) | |
| | * 4-048-473-01 | INDIVIDUAL CARTON (20inch model) | |
| | * 4-048-474-01 | CUSHION UPPER (ASSY) (20inch model) | |
| | * 4-048-475-01 | CUSHION LOWER (ASSY) (20inch model) | |
| | * 4-377-015-01 | BAG, PROTECTION (14inch model) | |
| | * 4-381-155-01 | BAG, PROTECTION (20inch model) | |

SECTION 9 BLOCK DIAGRAMS







Q CA, CB







10-1. FRAME SCHEMATIC DIAGRAMS



Note:

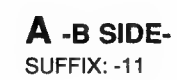
- All capacitors are in μF unless otherwise noted. PF: 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance.
 $\text{k}\Omega = 100$, $\text{M}\Omega = 1000 \text{ k}\Omega$
-  : nonflammable resistor.
-  : internal component.
-  : panel designation, or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The "4-1. +B Voltage Check" and "4-2. Protection Circuit (Hold-down circuit) Check" should always be performed when replacing the following components (marked  on the schematic diagram).

- Readings are taken with a color-bar signal input.
no mark : 20 inch
() : 14 inch
- Readings are taken with a 10 M digital multimeter .
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Circled numbers are waveform reference.
-  : B+ bus.
-  : B- bus.
-  : signal path.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

| | |
|-----------|-------------------------------|
| RESISTOR | : RN METAL FILM |
| | : RC SOLID |
| | : FPRD NONFLAMMABLE CARBON |
| | : FUSE NONFLAMMABLE FUSIBLE |
| | : RS NONFLAMMABLE METAL OXIDE |
| | : RB NONFLAMMABLE CEMENT |
| | : RW NONFLAMMABLE WIREWOUND |
| COIL | : LF-8L MICRO INDUCTOR |
| CAPACITOR | : TA TANTALUM |
| | : PS STYROL |
| | : PP POLYPROPYLENE |
| | : PT MYLAR |
| | : MPS METALIZED POLYESTER |
| | : MPP METALIZED POLYPROPYLENE |
| | : ALB BIPOLAR |
| | : ALT HIGH TEMPERATURE |
| | : ALR HIGH RIPPLE |

A A



A BOARD

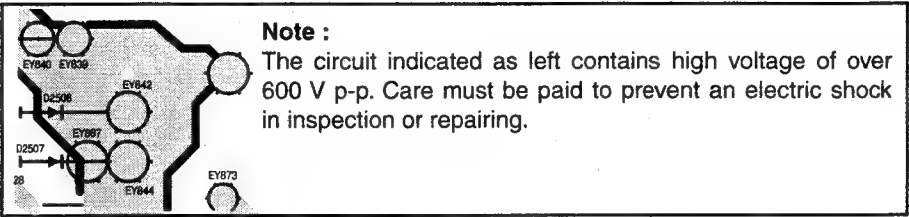
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IC001 E-11
IC002 D-12
IC003 E-10
IC201 A-5
IC301 C-10
IC401 B-2
IC402 A-2
IC551 C-5
IC552 B-4
IC601 J-6
IC651 F-5
IC652 D-8
IC654 C-7

Q004 *A-5
Q005 *D-9
Q101 D-6
Q102 *H-4
Q201 A-6
Q301 *C-11
Q302 *D-10
Q351 *A-7
Q352 *B-8
Q353 *B-8
Q354 *B-9
Q355 *A-8
Q356 *A-9
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Q362 *A-12
Q363 *A-12
Q364 *A-12
Q365 *A-7
Q401 *B-2
Q402 *B-3
Q403 *B-2
Q404 *B-4
Q405 *B-3
Q501 E-3
Q502 D-4
Q551 C-4
Q601 H-6

D001 *E-12
D002 *D-12
D003 *D-12
D004 *D-12
D005 *E-11
D101 *D-5
D102 I-4
D103 J-4
D201 A-6
D301 D-10
D302 I-4
D351 *A-10
D352 *A-10
D353 *A-10
D501 G-1
D502 F-1
D503 C-1
D504 C-1
D506 I-1
D507 J-5
D508 F-3
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D551 C-6
D552 D-8
D601 H-9
D605 H-6
D606 J-7
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D653 E-6
D656 I-13

TP601 F-5



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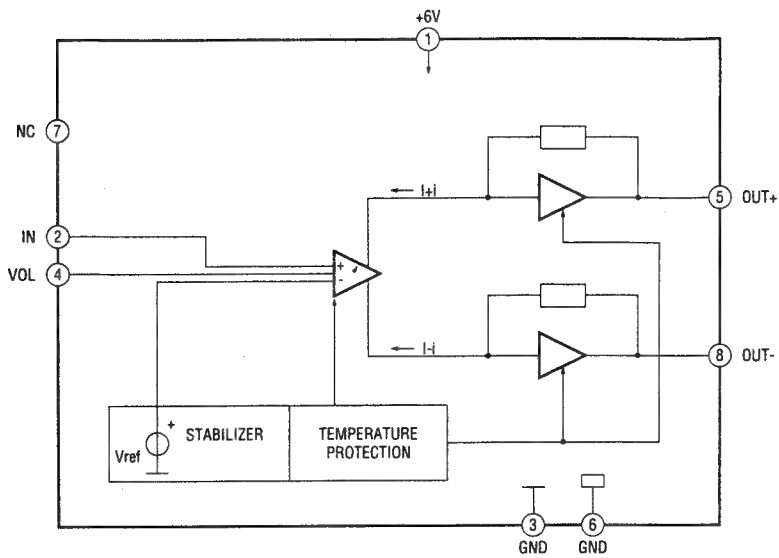
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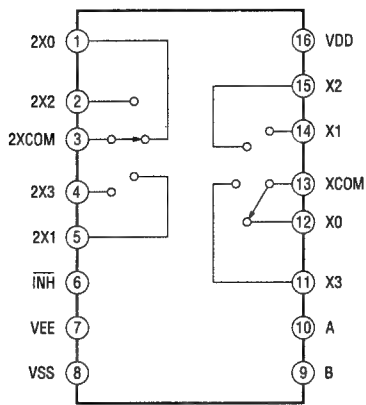
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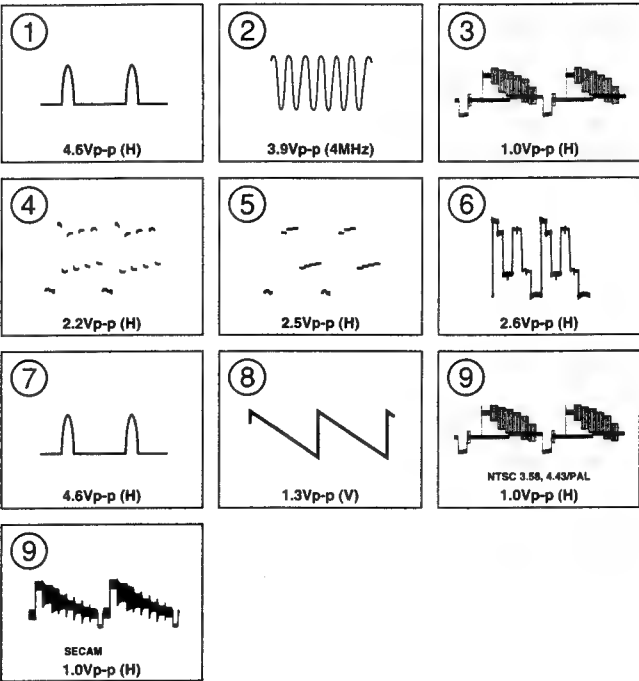
A (1/2) BOARD IC201 TDA7052A



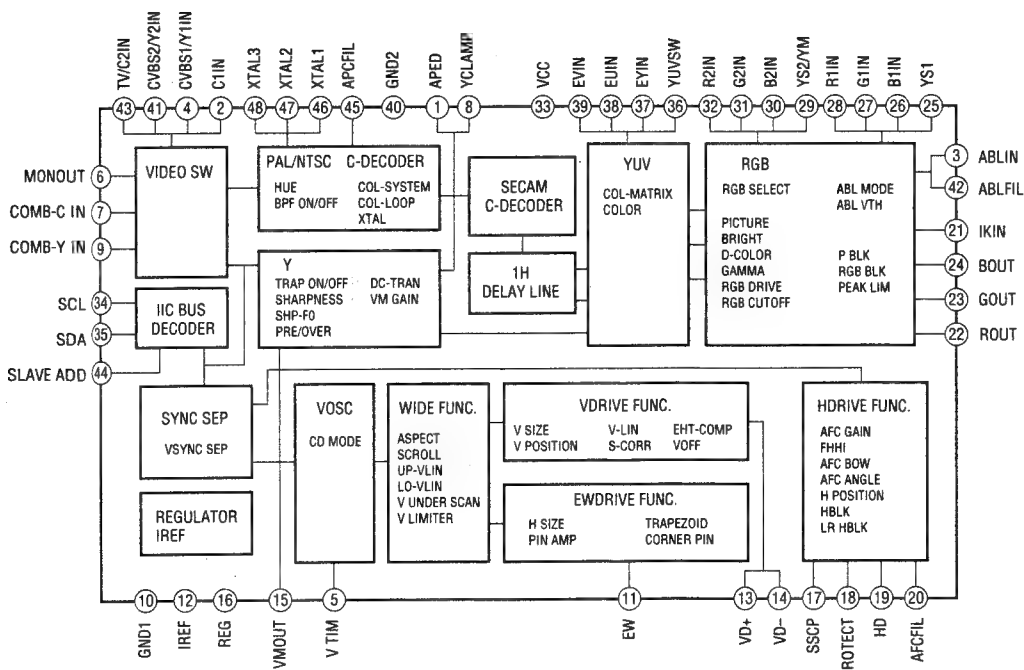
A (1/2) BOARD IC401 MC14052BCP



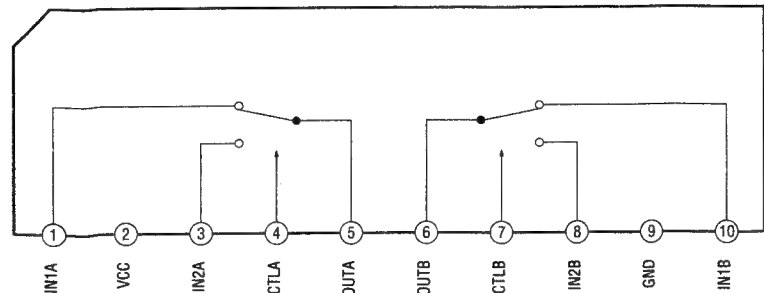
A (1/2) BOARD WAVEFORMS



A (1/2) BOARD IC301 CXA2060BS



A (1/2) BOARD IC402 BA7604N

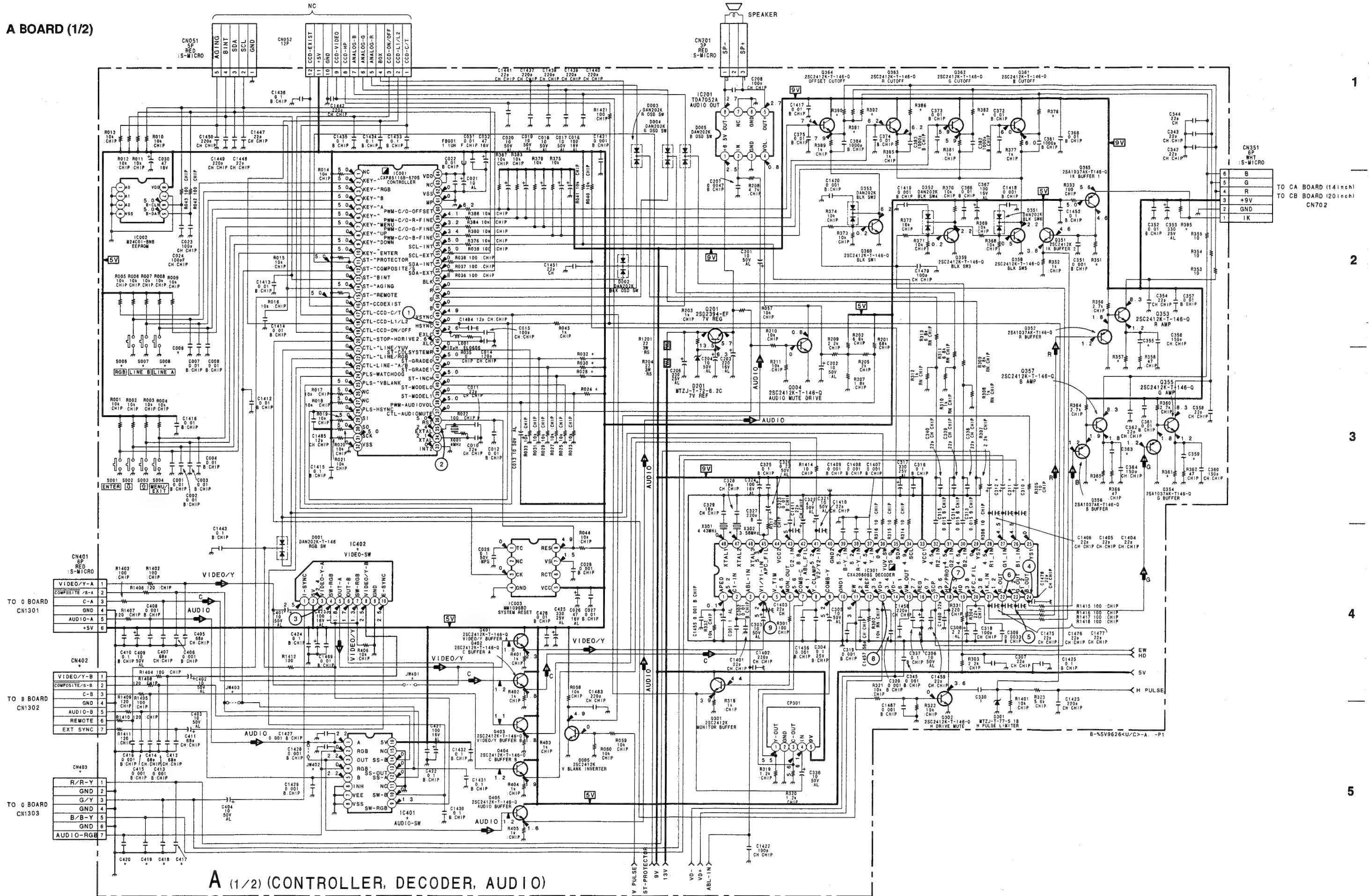


A (1/2) BOARD * MARK LIST

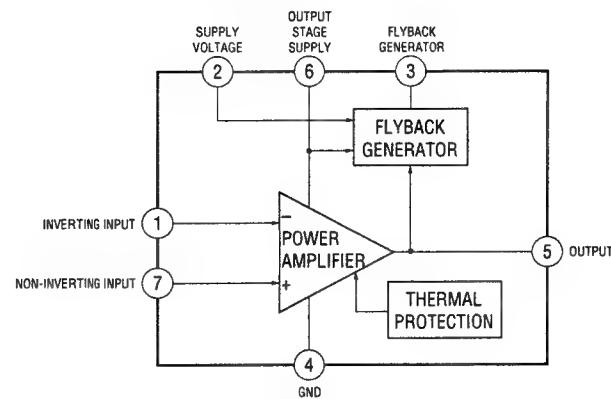
| Model | PVM-14N6A/E/U | PVM-14N5A/E/U | PVM-20N6A/E/U | PVM-20N5A/E/U | SSM-14N5A/E/U | SSM-20N5A/E/U | PVM-14N5MDE |
|--------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Ref.No | | | | | | | |
| C006 | 0.01 B:CHIP | # | 0.01 B:CHIP | # | # | # | # |
| C310 | 0.1 25V B:CHIP | # | 0.1 25V B:CHIP | # | # | # | # |
| C311 | 0.1 25V B:CHIP | # | 0.1 25V B:CHIP | # | # | # | # |
| C312 | 0.1 25V B:CHIP | # | 0.1 25V B:CHIP | # | # | # | # |
| C355 | 330p CH:CHIP | 330p CH:CHIP | 390p CH:CHIP | 390p CH:CHIP | 330p CH:CHIP | 390p CH:CHIP | 330p CH:CHIP |
| C359 | 330p CH:CHIP | 330p CH:CHIP | 390p CH:CHIP | 390p CH:CHIP | 330p CH:CHIP | 390p CH:CHIP | 330p CH:CHIP |
| C363 | 330p CH:CHIP | 330p CH:CHIP | 390p CH:CHIP | 390p CH:CHIP | 330p CH:CHIP | 390p CH:CHIP | 330p CH:CHIP |
| C417 | 68p CH:CHIP | 68p CH:CHIP | 68p CH:CHIP | 68p CH:CHIP | 0:CHIP | 0:CHIP | 68p CH:CHIP |
| C418 | 68p CH:CHIP | 68p CH:CHIP | 68p CH:CHIP | 68p CH:CHIP | 0:CHIP | 0:CHIP | 68p CH:CHIP |
| C419 | 68p CH:CHIP | 68p CH:CHIP | 68p CH:CHIP | 68p CH:CHIP | 0:CHIP | 0:CHIP | 68p CH:CHIP |
| C420 | 0.001 B:CHIP | 0.001 B:CHIP | 0.001 B:CHIP | 0:CHIP | 0:CHIP | 0:CHIP | 0.001 B:CHIP |
| CN402 | 7P WHT :S-MICRO | 7P WHT :S-MICRO | 7P WHT :S-MICRO | 7P WHT :S-MICRO | # | # | 7P WHT :S-MICRO |
| CN403 | 7P YEL :S-MICRO | # | 7P YEL :S-MICRO | # | 7P YEL :S-MICRO | 7P YEL :S-MICRO | # |
| IC401 | MC14052BCP | MC14052BCP | MC14052BCP | MC14052BCP | # | # | MC14052BCP |
| IC402 | BA7604N | BA7604N | BA7604N | BA7604N | # | # | BA7604N |
| JW401 | # | # | # | # | SMM | SMM | # |
| JW402 | # | # | # | # | SMM | SMM | # |
| JW403 | # | # | # | # | SMM | SMM | # |
| R024 | # | # | # | # | # | # | 10 |
| R028 | # | # | 10 | 10 | # | 10 | # |
| R030 | 10 | # | 10 | # | # | # | # |
| R032 | 10 | 10 | 10 | 10 | # | # | 10 |
| R351 | 6.2k :RN-CP | 6.2k :RN-CP | 15k :RN-CP | 15k :RN-CP | 6.2k :RN-CP | 15k :RN-CP | 6.2k :RN-CP |
| R357 | 390 :RN-CP | 390 :RN-CP | 300 :RN-CP | 300 :RN-CP | 390 :RN-CP | 390 :RN-CP | 390 :RN-CP |
| R361 | 390 :RN-CP | 390 :RN-CP | 300 :RN-CP | 300 :RN-CP | 390 :RN-CP | 300 :RN-CP | 390 :RN-CP |
| R365 | 390 :RN-CP | 390 :RN-CP | 300 :RN-CP | 300 :RN-CP | 390 :RN-CP | 300 :RN-CP | 390 :RN-CP |
| R378 | 6.2k :RN | 6.2k :RN | 4.7k :RN | 4.7k :RN | 6.2k :RN | 4.7k :RN | 6.2k :RN |
| R382 | 5.1k :RN | 5.1k :RN | 3.9k :RN | 3.9k :RN | 5.1k :RN | 3.9k :RN | 5.1k :RN |
| R386 | 4.3k :RN | 4.3k :RN | 3.3k :RN | 3.3k :RN | 4.3k :RN | 3.3k :RN | 4.3k :RN |
| R390 | 3.6k :RN-CP | 3.6k :RN-CP | 3.3k :RN-CP | 3.3k :RN-CP | 3.6k :RN-CP | 3.3k :RN-CP | 3.6k :RN-CP |
| R391 | 3.6k :RN-CP | 3.6k :RN-CP | 3.9k :RN-CP | 3.9k :RN-CP | 3.6k :RN-CP | 3.9k :RN-CP | 3.6k :RN-CP |
| R392 | 3.6k :RN-CP | 3.6k :RN-CP | 4.7k :RN-CP | 4.7k :RN-CP | 3.6k :RN-CP | 4.7k :RN-CP | 3.6k :RN-CP |
| R395 | 22k :RN-CP | 22k :RN-CP | 47k :RN-CP | 47k :RN-CP | 22k :RN-CP | 47k :RN-CP | 22k :RN-CP |
| S006 | RGB-KEY | # | RGB-KEY | # | # | # | # |
| S007 | LINE B | LINE B | LINE B | LINE B | # | # | LINE B |
| S008 | LINE A | LINE A | LINE A | LINE A | # | # | LINE A |

: NOT USED

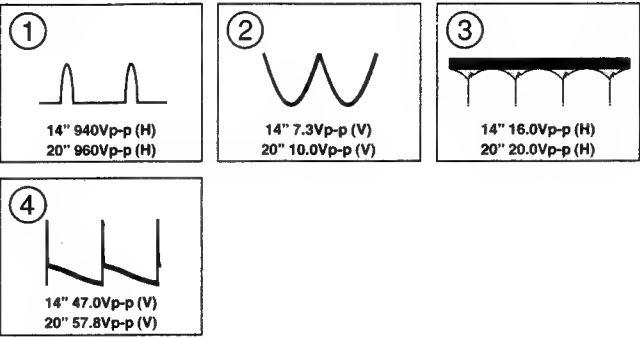
A BOARD (1/2)



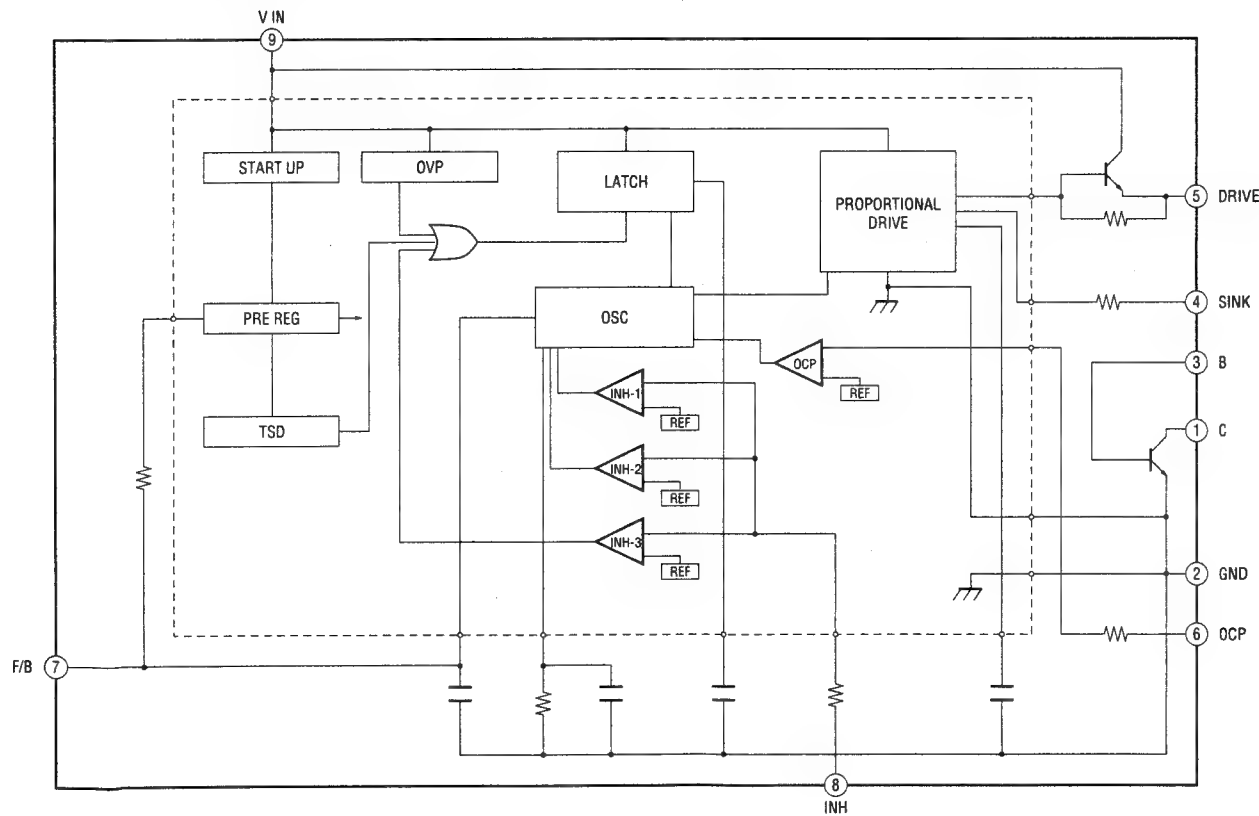
A (2/2) BOARD IC551 STV9739



A (2/2) BOARD WAVEFORMS



A (2/2) BOARD IC601 STR-S6708

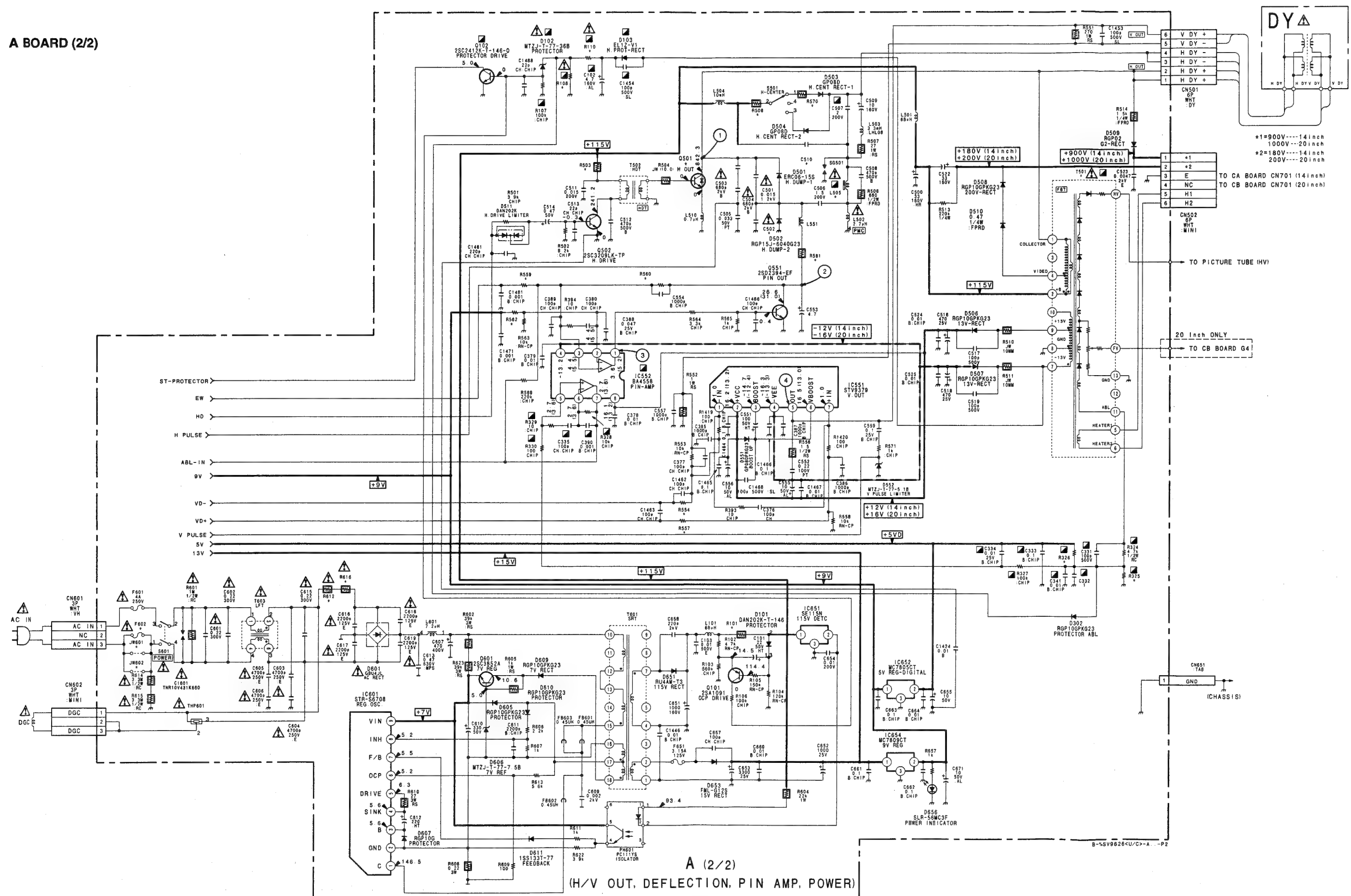


A (2/2) BOARD * MARK LIST

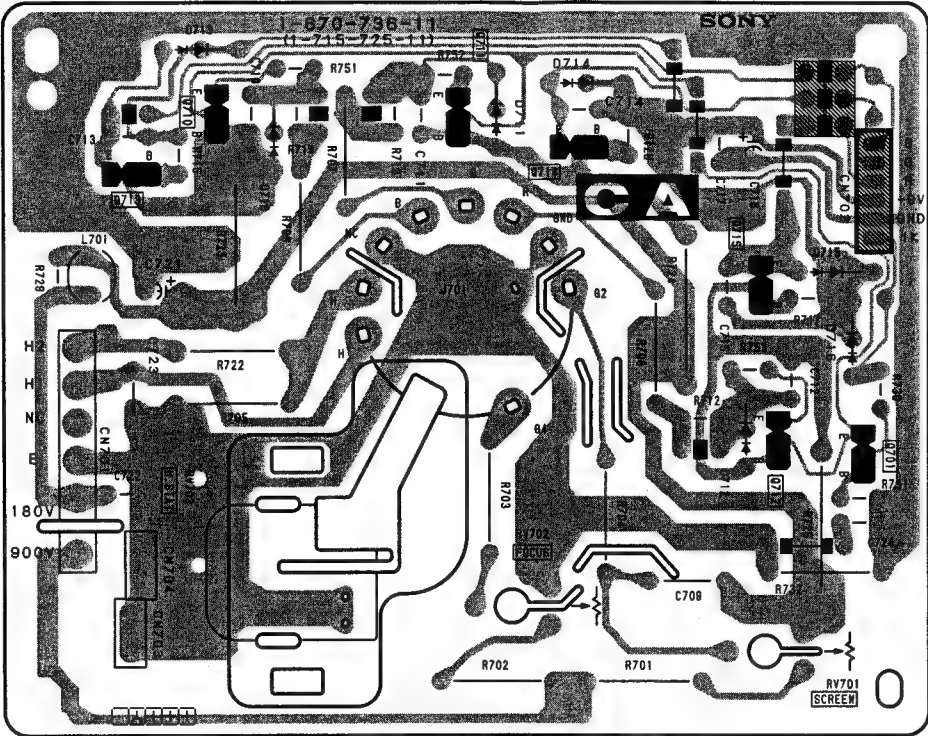
| Model | PVM-14N6A/E/U | PVM-14N5A/E/U | PVM-20N6A/E/U | PVM-20N5A/E/U | SSM-14N5A/E/U | SSM-20N5A/E/U | PVM-14N5MDE |
|--------|---------------|---------------|----------------|----------------|---------------|----------------|---------------|
| Ref.No | 0.015 630V | 0.015 630V | 0.018 400V | 0.018 400V | 0.015 630V | 0.018 400V | 0.015 630V |
| C502 | 0.1 200V :PP | 0.1 200V :PP | 0.33 200V :PP | 0.33 200V :PP | 0.1 200V :PP | 0.33 200V :PP | 0.1 200V :PP |
| F602 | # | # | # | # | # | # | 4A/250V |
| JW601 | 10MM | 10MM | 10MM | 10MM | 10MM | 10MM | # |
| JW602 | 10MM | 10MM | 10MM | 10MM | 10MM | 10MM | # |
| L505 | 1-459-760-13 | 1-459-760-13 | 1-459-769-13 | 1-459-769-13 | 1-459-760-13 | 1-459-769-13 | 1-459-760-13 |
| Q501 | 2SD1877S | 2SD1877S | 2SD1878-CA | 2SD1878-CA | 2SD1877S | 2SD1878-CA | 2SD1877S |
| R101 | 1.5 3W | 1.5 3W | 1.2 3W | 1.2 3W | 1.5 3W | 1.2 3W | 1.5 3W |
| R108 | 180k :RN-CP | 180k :RN-CP | 150k :RN-CP | 150k :RN-CP | 180k :RN-CP | 150k :RN-CP | 180k :RN-CP |
| R110 | 470k :RN:CHIP | 470k :RN:CHIP | 510k :RN:CHIP | 510k :RN:CHIP | 470k :RN:CHIP | 510k :RN:CHIP | 470k :RN:CHIP |
| R325 | 12k :CHIP | 12k :CHIP | 8.2k :CHIP | 8.2k :CHIP | 12k :CHIP | 8.2k :CHIP | 12k :CHIP |
| R326 | 3.9k :CHIP | 3.9k :CHIP | 2.7k :CHIP | 2.7k :CHIP | 3.9k :CHIP | 2.7k :CHIP | 3.9k :CHIP |
| R503 | 4.7k 2W | 4.7k 2W | 3.3k 2W | 3.3k 2W | 4.7k 2W | 3.3k 2W | 4.7k 2W |
| R508 | 68 1W :RS | 68 1W :RS | 33 1W :RS | 33 1W :RS | 68 1W :RS | 33 1W :RS | 68 1W :RS |
| R554 | 30k :RN-CP | 30k :RN-CP | 24k :RN-CP | 24k :RN-CP | 30k :RN-CP | 24k :RN-CP | 30k :RN-CP |
| R557 | 30k :RN-CP | 30k :RN-CP | 24k :RN-CP | 24k :RN-CP | 30k :RN-CP | 24k :RN-CP | 30k :RN-CP |
| R559 | 15k :CHIP | 15k :CHIP | 3.9k :CHIP | 3.9k :CHIP | 15k :CHIP | 3.9k :CHIP | 15k :CHIP |
| R560 | 220k :CHIP | 220k :CHIP | 100k :CHIP | 100k :CHIP | 220k :CHIP | 100k :CHIP | 220k :CHIP |
| R561 | IC-LINK | IC-LINK | 8.2 1/4W :FPRD | 8.2 1/4W :FPRD | IC-LINK | 8.2 1/4W :FPRD | IC-LINK |
| R562 | 6.2k :RN-CP | 6.2k :RN-CP | 10k :RN-CP | 10k :RN-CP | 6.2k :RN-CP | 10k :RN-CP | 6.2k :RN-CP |
| R570 | 18 1W :RS | 18 1W :RS | 12 1W :RS | 12 1W :RS | 18 1W :RS | 12 1W :RS | 18 1W :RS |
| R612 | 1.5 10W :RB | 1.5 10W :RB | 1 10W :RB | 1 10W :RB | 1.5 10W :RB | 1 10W :RB | 1.5 10W :RB |
| R616 | 1.5 10W :RB | 1.5 10W :RB | 1 10W :RB | 1 10W :RB | 1.5 10W :RB | 1 10W :RB | 1.5 10W :RB |
| T501 | NX-4301 | NX-4301 | NX-4008 | NX-4008 | NX-4301 | NX-4008 | NX-4301 |

: NOT USED

A BOARD (2/2)

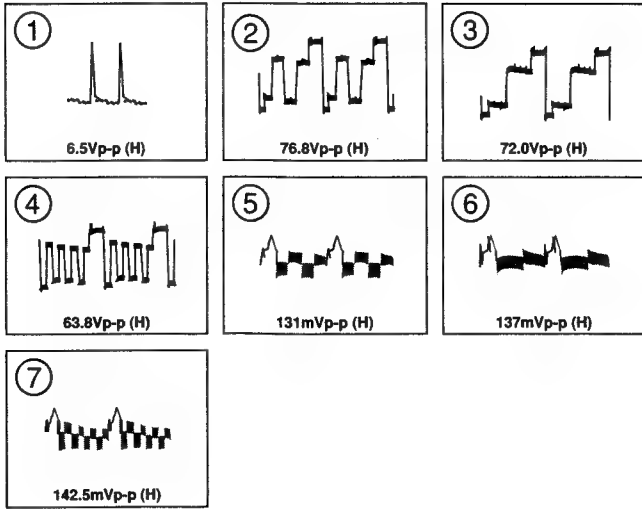


CA BOARD



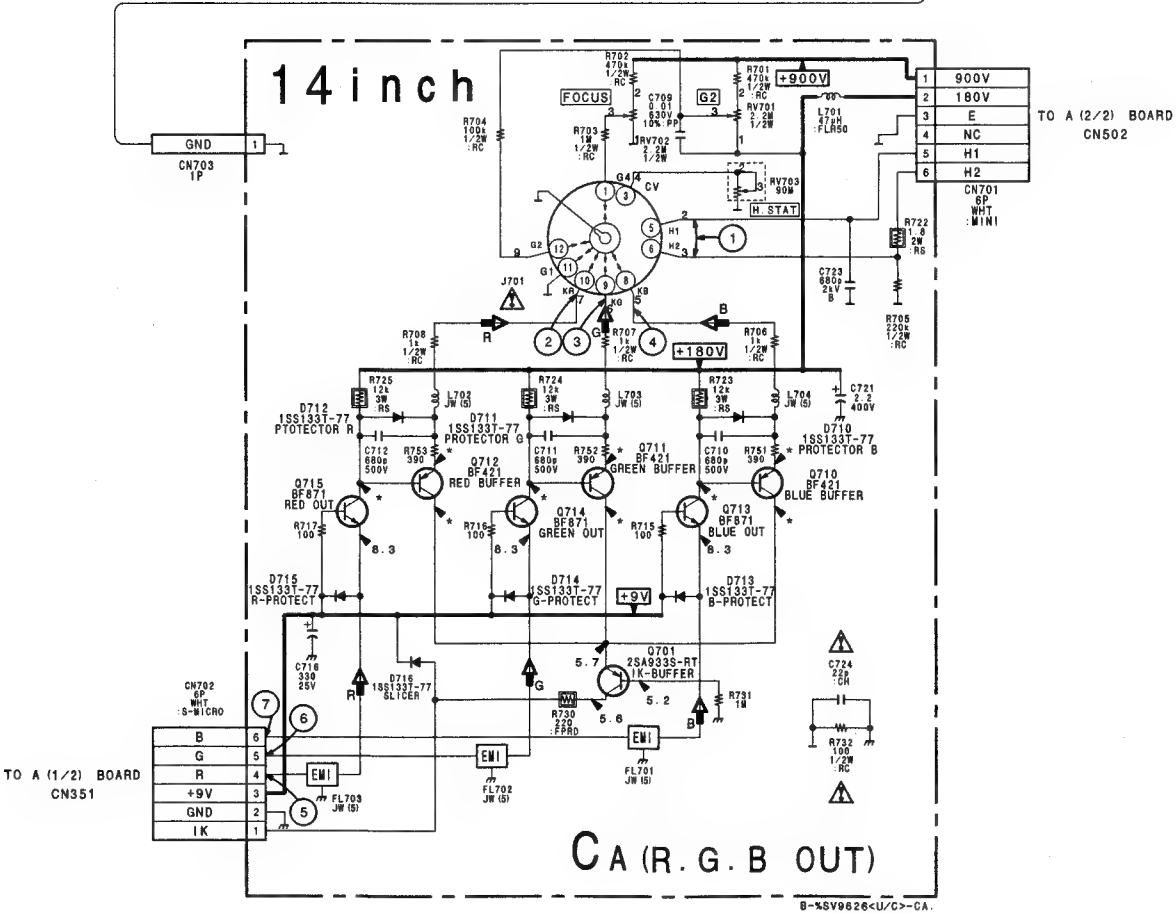
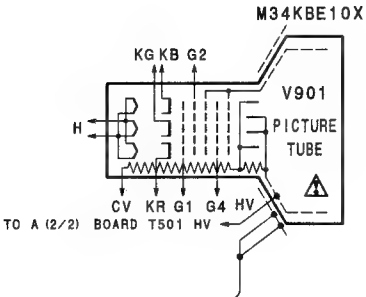
CA -B SIDE-
SUFFIX: -11

CA BOARD WAVEFORM

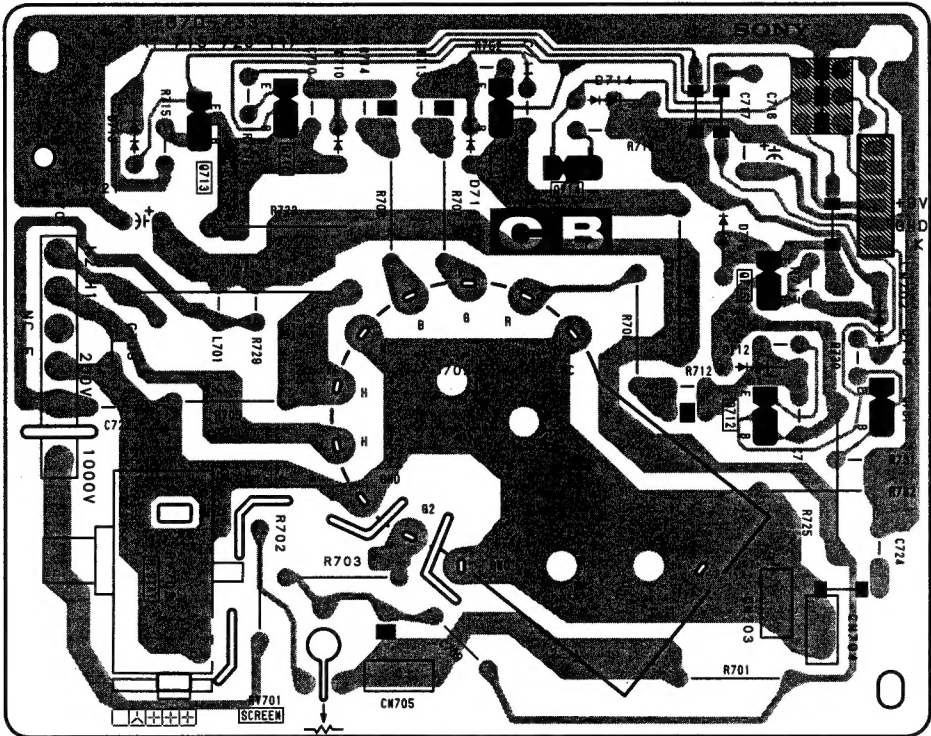


CA BOARD * MARK

| | | NTSC | NTSC | PAL | SECAM |
|------|---|-------|-------|-------|-------|
| | | 3.58 | 4.43 | | |
| Q710 | B | 154.1 | 154.4 | 140.1 | 141.2 |
| | E | 165.2 | 165.2 | 160 | 154.2 |
| Q711 | B | 152.5 | 152.6 | 138.6 | 139.6 |
| | E | 164.7 | 164.7 | 160 | 160.4 |
| Q712 | B | 153.2 | 153.2 | 135.5 | 136.7 |
| | E | 166.2 | 166.3 | 161.2 | 159.5 |

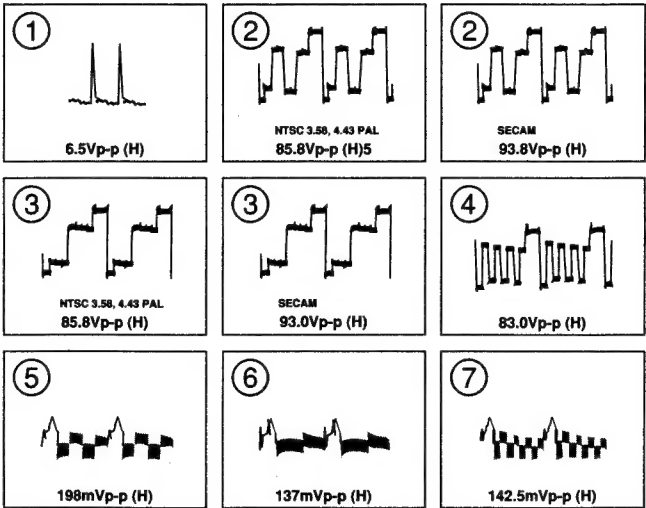


CB BOARD



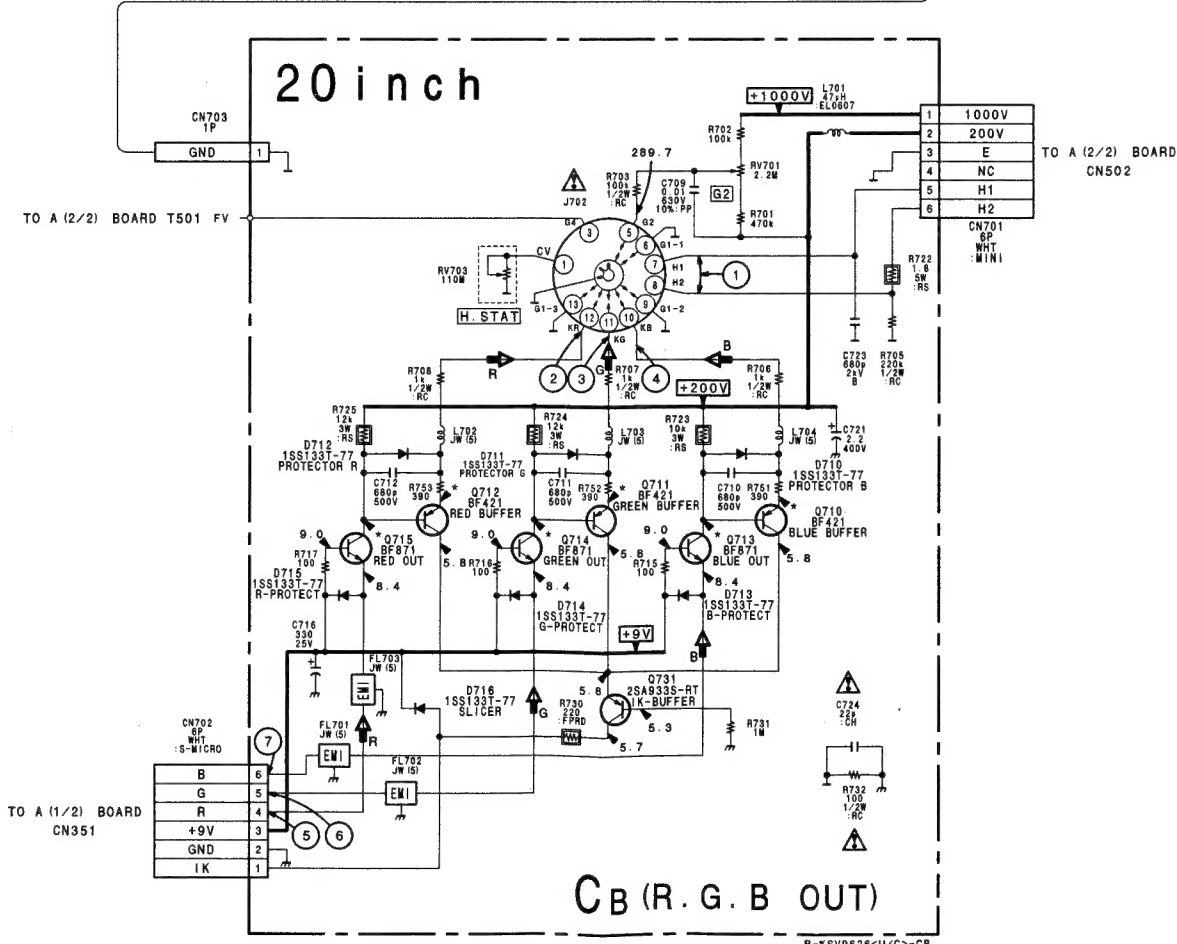
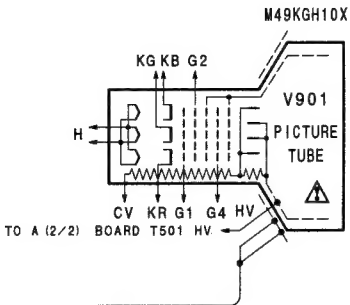
CB -B SIDE-
SUFFIX: -11

CB BOARD WAVEFORM

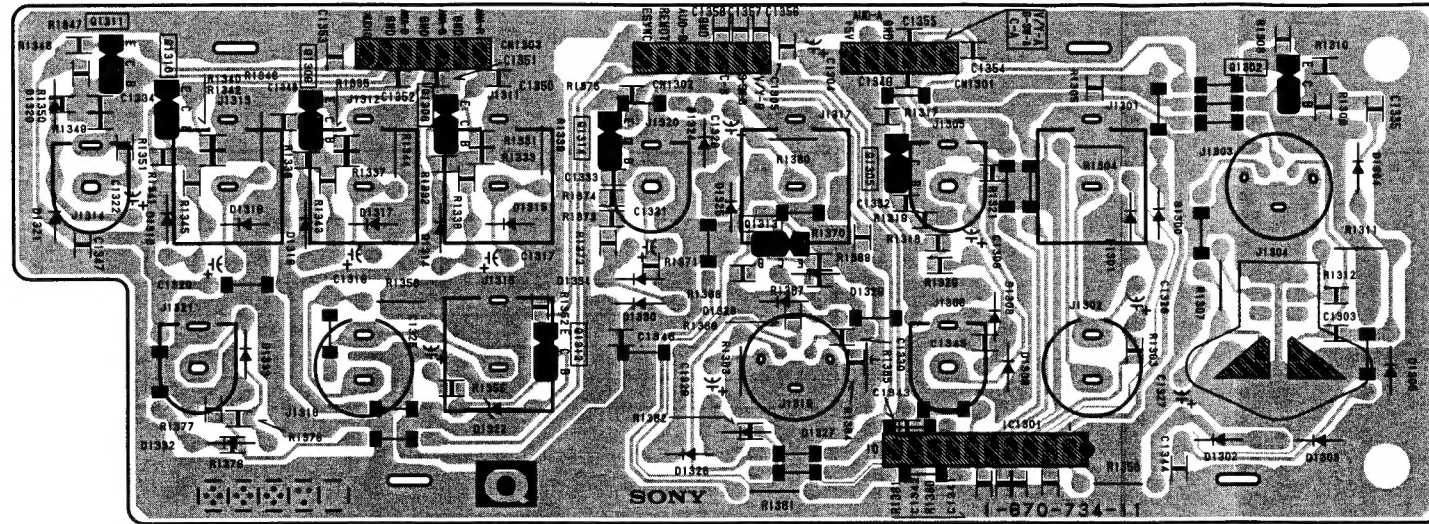


CB BOARD * MARK

| | | NTSC | NTSC | PAL | SECAM |
|------|---|-------|-------|-------|-------|
| | | 3.58 | 4.43 | | |
| Q710 | B | 142.1 | 141.5 | 141.8 | 143.8 |
| | E | 161.9 | 162.4 | 171.7 | 168.6 |
| Q711 | B | 140.2 | 138.2 | 141.3 | 142.1 |
| | E | 166.5 | 166.4 | 184.6 | 184.6 |
| Q712 | B | 137.4 | 137.2 | 138.6 | 140.4 |
| | E | 170.6 | 171.2 | 189.6 | 184.1 |



Q BOARD



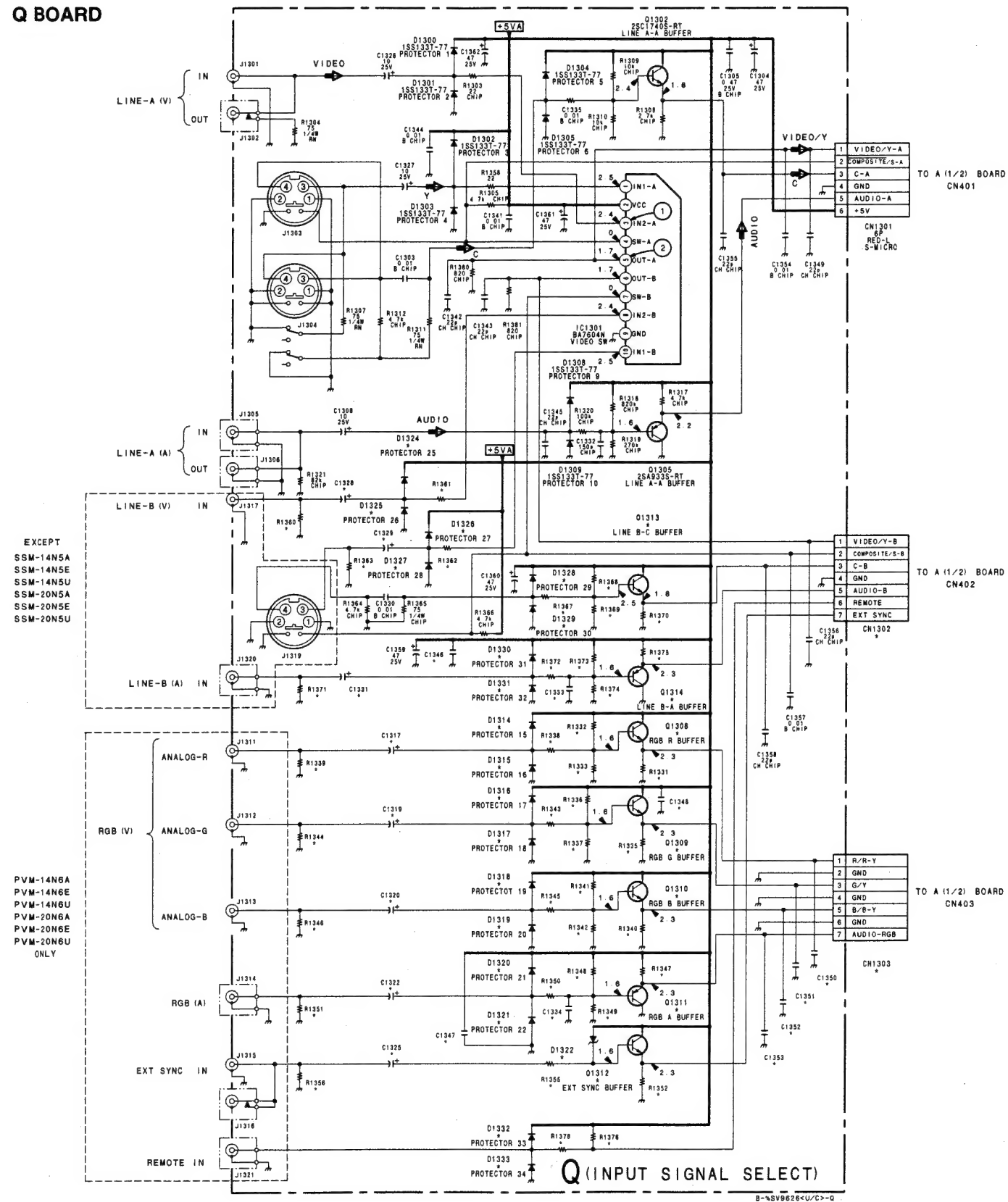
Q -B SIDE-
SUFFIX: -11

Q BOARD * MARK LIST

| Model | PVM -14N6A/E/U -20N6A/E/U | PVM -14N5A/E/U -20N5A/E/U -14N5MDE | SSM -14N5A/E/U -20N5A/E/U |
|--------|------------------------------|--|------------------------------|
| Ref.No | | | |
| C1317 | 10 25V | # | # |
| C1319 | 10 25V | # | # |
| C1320 | 10 25V | # | # |
| C1322 | 10 25V | # | # |
| C1325 | 10 25V | # | # |
| C1328 | 10 25V | 10 25V | # |
| C1329 | 10 25V | 10 25V | # |
| C1330 | 0.01 B:CHIP | 0.01 B:CHIP | # |
| C1331 | 10 25V | 10 25V | # |
| C1333 | 150p :CHIP | 150p :CHIP | # |
| C1334 | 150p :CHIP | # | # |
| C1350 | 22p CH:CHIP | 22p CH:CHIP | 0 :CHIP |
| C1351 | 22p CH:CHIP | 22p CH:CHIP | 0 :CHIP |
| C1352 | 22p CH:CHIP | 22p CH:CHIP | 0 CHIP |
| C1353 | 22p CH:CHIP | 22p CH:CHIP | 0 CHIP |
| CN1302 | 7P WHT-L :S-MICRO | 7P WHT-L :S-MICRO | # |
| CN1303 | 7P YEL-L :S-MICRO | # | 7P YEL-L :S-MICRO |
| D1314 | 1SS133T-77 | # | # |
| D1315 | 1SS133T-77 | # | # |
| D1316 | 1SS133T-77 | # | # |
| D1317 | 1SS133T-77 | # | # |
| D1318 | 1SS133T-77 | # | # |
| D1319 | 1SS133T-77 | # | # |
| D1320 | 1SS133T-77 | # | # |
| D1321 | 1SS133T-77 | # | # |
| D1322 | MTZ1-T-77 | # | # |
| D1324 | 1SS133T-77 | 1SS133T-77 | # |
| D1325 | 1SS133T-77 | 1SS133T-77 | # |
| D1326 | 1SS133T-77 | 1SS133T-77 | # |
| D1327 | 1SS133T-77 | 1SS133T-77 | # |
| D1328 | 1SS133T-77 | 1SS133T-77 | # |
| D1329 | 1SS133T-77 | 1SS133T-77 | # |
| D1330 | 1SS133T-77 | 1SS133T-77 | # |
| D1331 | 1SS133T-77 | 1SS133T-77 | # |
| D1332 | 1SS133T-77 | # | # |
| D1333 | 1SS133T-77 | # | # |
| Q1308 | 28C1740S | # | # |
| Q1309 | 28C1740S | # | # |
| Q1310 | 28C1740S | # | # |
| Q1311 | 2SA933S-RT | # | # |
| Q1312 | 28C1740S | # | # |
| Q1313 | 28C1740S | 28C1740S | # |
| Q1314 | 2SA933S-RT | 2SA933S-RT | # |
| R1331 | 1k :CHIP | # | # |
| R1332 | 10k :CHIP | # | # |
| R1333 | 10k :CHIP | # | # |
| R1335 | 1k :CHIP | # | # |
| R1336 | 10k :CHIP | # | # |
| R1337 | 10k :CHIP | # | # |
| R1338 | 22 :CHIP | # | # |
| R1339 | 75 1/4W :RN | # | # |
| R1340 | 1k :CHIP | # | # |
| R1341 | 10k :CHIP | # | # |
| R1342 | 10k :CHIP | # | # |
| R1343 | 22 :CHIP | # | # |
| R1344 | 75 1/4W :RN | # | # |
| R1345 | 22 :CHIP | # | # |
| R1346 | 75 1/4W :RN | # | # |
| R1347 | 4.7k :CHIP | # | # |
| R1348 | 820k :CHIP | # | # |
| R1349 | 270k :CHIP | # | # |
| R1350 | 100k :CHIP | # | # |
| R1351 | 82k :CHIP | # | # |
| R1352 | 2.7k :CHIP | # | # |
| R1355 | 1k :CHIP | # | # |
| R1356 | 75 1/4W :RN | # | # |
| R1360 | 75 1/4W :RN | 75 1/4W :RN | # |
| R1361 | 22 | 22 | # |
| R1362 | 22 :CHIP | 22 :CHIP | # |
| R1363 | 75 1/4W :RN | 75 1/4W :RN | # |
| R1364 | 4.7k :CHIP | 4.7k :CHIP | # |
| R1365 | 75 1/4W :RN | 75 1/4W :RN | # |
| R1366 | 4.7k :CHIP | 4.7k :CHIP | # |
| R1367 | 0.01 B:CHIP | 0.01 B:CHIP | # |
| R1368 | 10k :CHIP | 10k :CHIP | # |
| R1369 | 10k :CHIP | 10k :CHIP | # |
| R1370 | 2.7k :CHIP | 2.7k :CHIP | # |
| R1371 | 82k :CHIP | 82k :CHIP | # |
| R1372 | 100k :CHIP | 100k :CHIP | # |
| R1373 | 820k :CHIP | 820k :CHIP | # |
| R1374 | 270k :CHIP | 270k :CHIP | # |
| R1375 | 4.7k :CHIP | 4.7k :CHIP | # |
| R1376 | 10k :CHIP | # | # |
| R1378 | 22 :CHIP | # | # |

: NOT USED

Q BOARD



Q BOARD WAVEFORM

